How Do We Know Its Affordable? Using New Measures to Help Retrofit the Region for Economic Success

Scott Bernstein, CNT

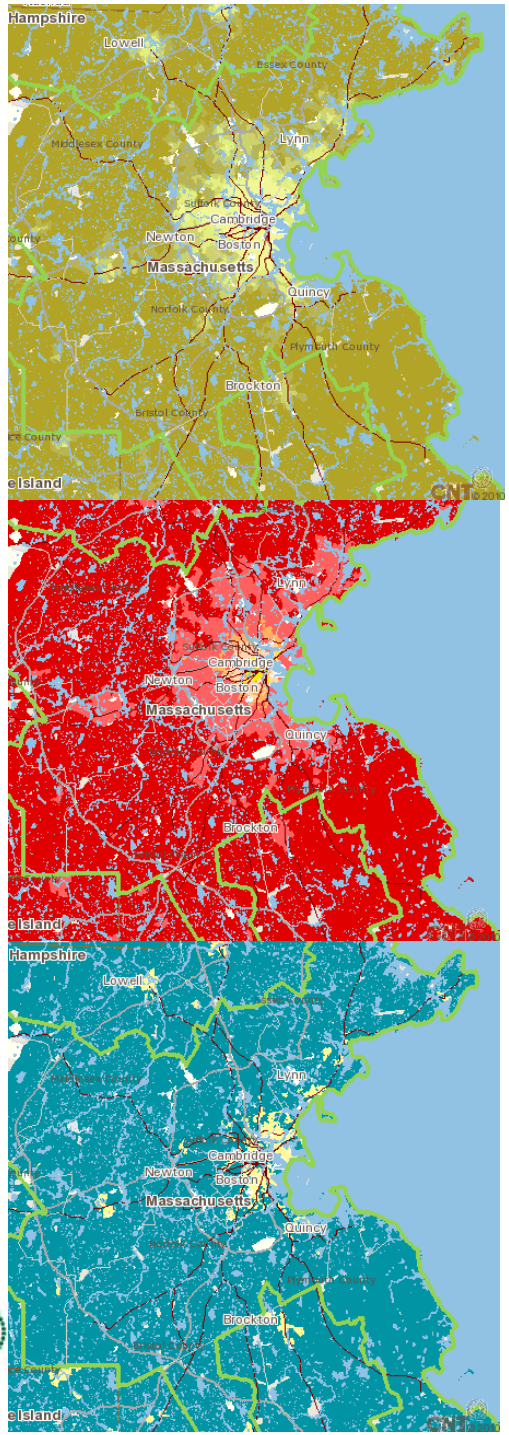
MA Workforce Housing & Economic Competitiveness for Gov. Patrick

Governor's Institute on Community Design

July 25, 2012

scott@cnt.org

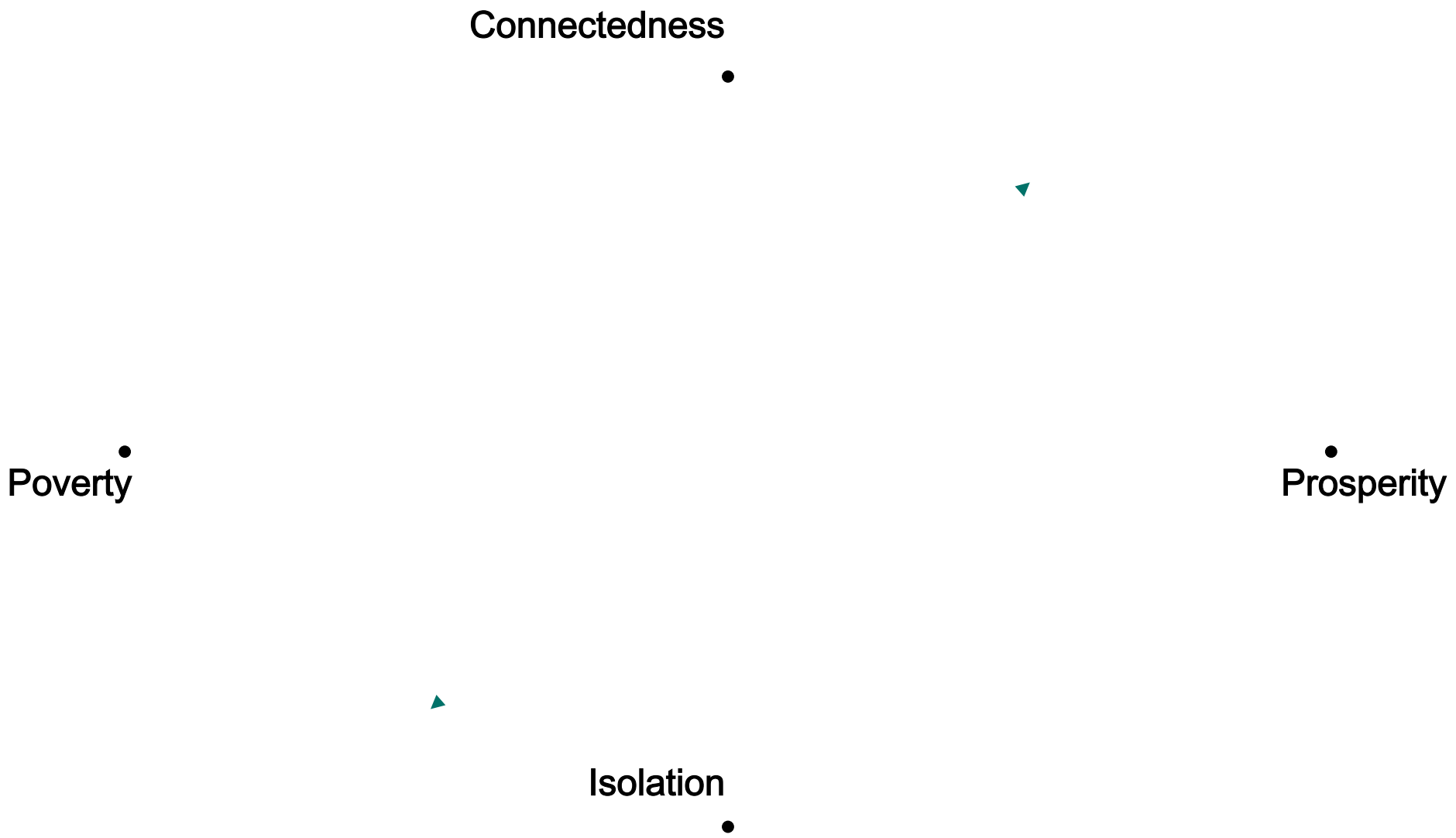
www.cnt.org



Purposes

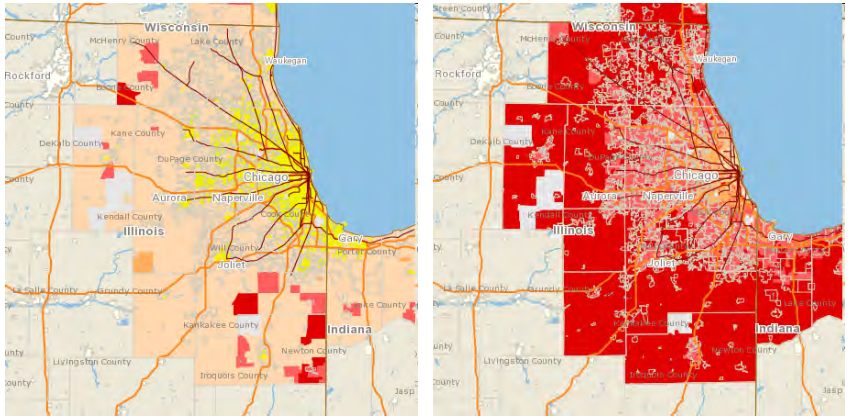
- Review new knowledge about the region's distribution of housing and transportation costs
- Show a relationship between demand for workforce housing and the quality of place
- Recommend some strategies to meet the gap in affordable workforce housing in Massachusetts

What a Nourishing Economy Does—Reduces Risk, Increases Gain

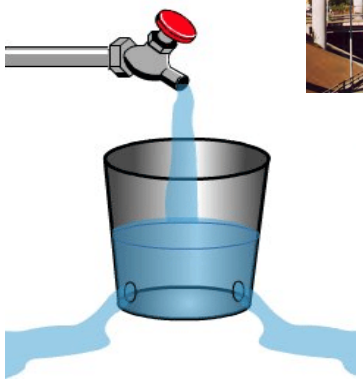


What a Nourishing Economy Does and Does Not Look Like

Connectedness



Poverty



Isolation

Prosperity

Historical Precedent for Rapid Change— From 1885 to 1902

- America went from 1 electric street railway to 1 in every city of 10,000
- Rate of growth =to the Internet
- Demand boosted by important social movements—e.g. home economics
- Thousands of miles of streets + local and inter-urban statewide connecting in turn to the national inter-city rail networks
- BC Electric Railway 311 miles connecting Vancouver/suburbs to Fraser Valley & New Westminster; connections south to Everett/ Seattle
- Approx. 300 cars in service

Getting to scale through network economies—when a large Number of connected small Investments are worth more than a few big ones

1920

Some Historical Antecedents for Quick Learning & Action

- Ellen Swallow Richards—scorekeeping and home economics
- ***From 1908-1928, 1/3 of US high school students trained in household budgeting—helped get through the Depression***
- Established the idea that efficiency, cost of living reduction and productivity are for households and communities

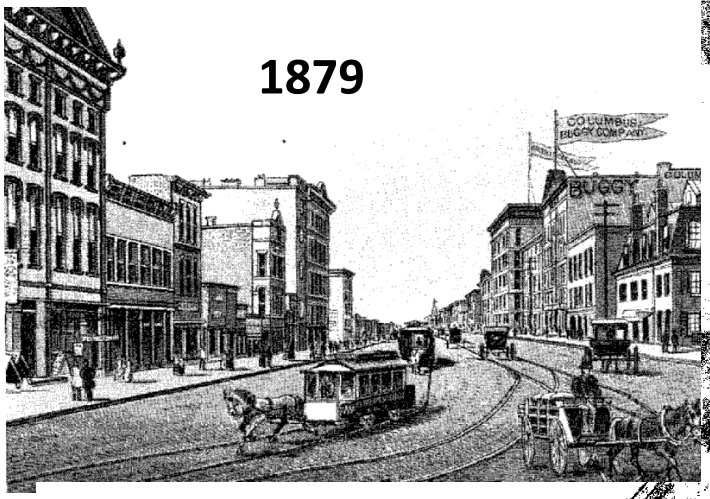
Columbus, Ohio
Broad & High Peak-Value at Streetcar Intersection

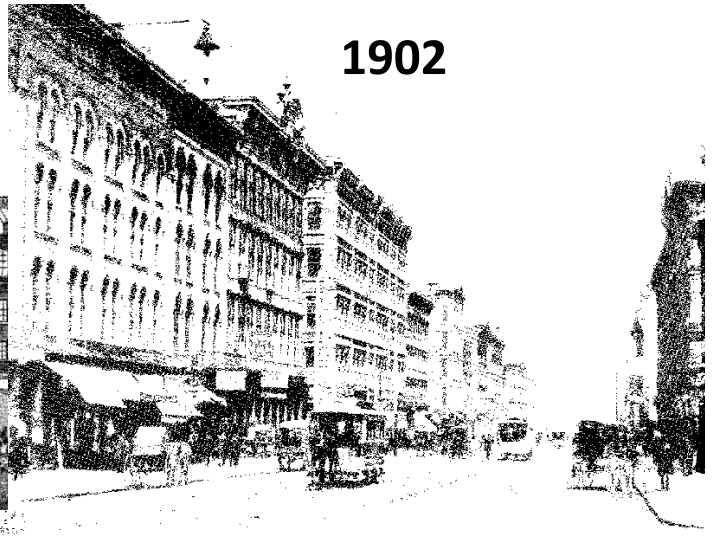
Note

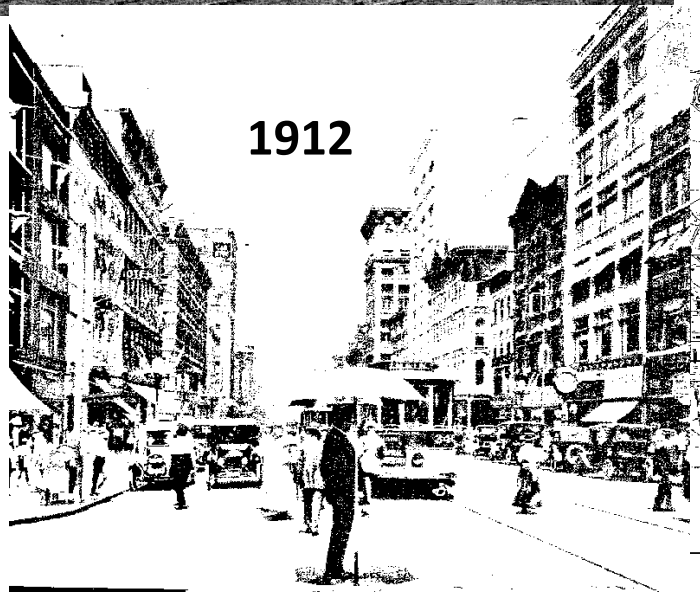
- **Increasing Density,**
- **Mixed-Use Development,**

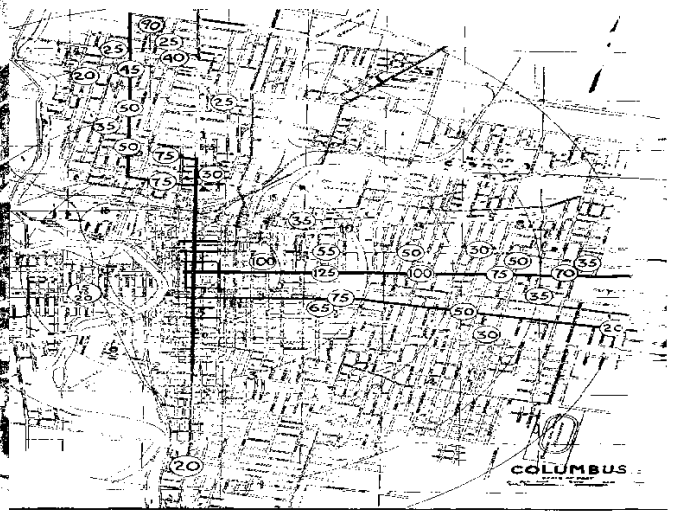
and

- **Human Traffic Control Umbrella**



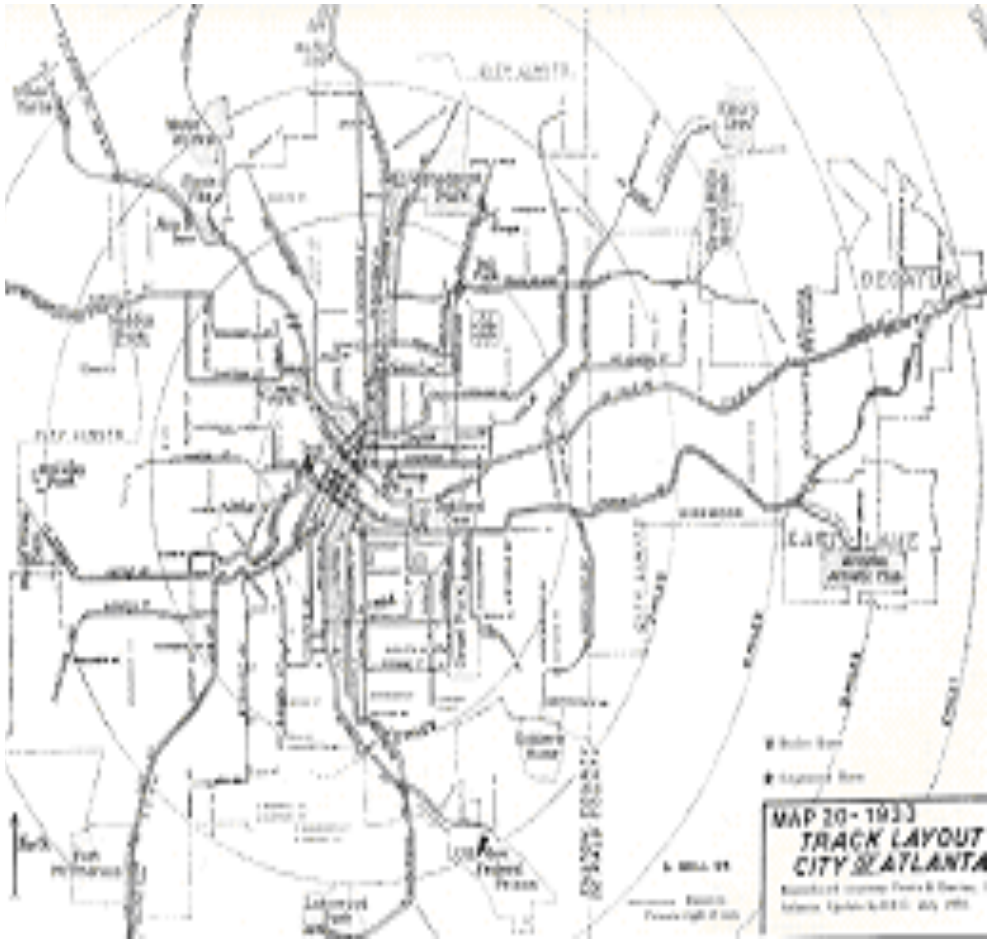




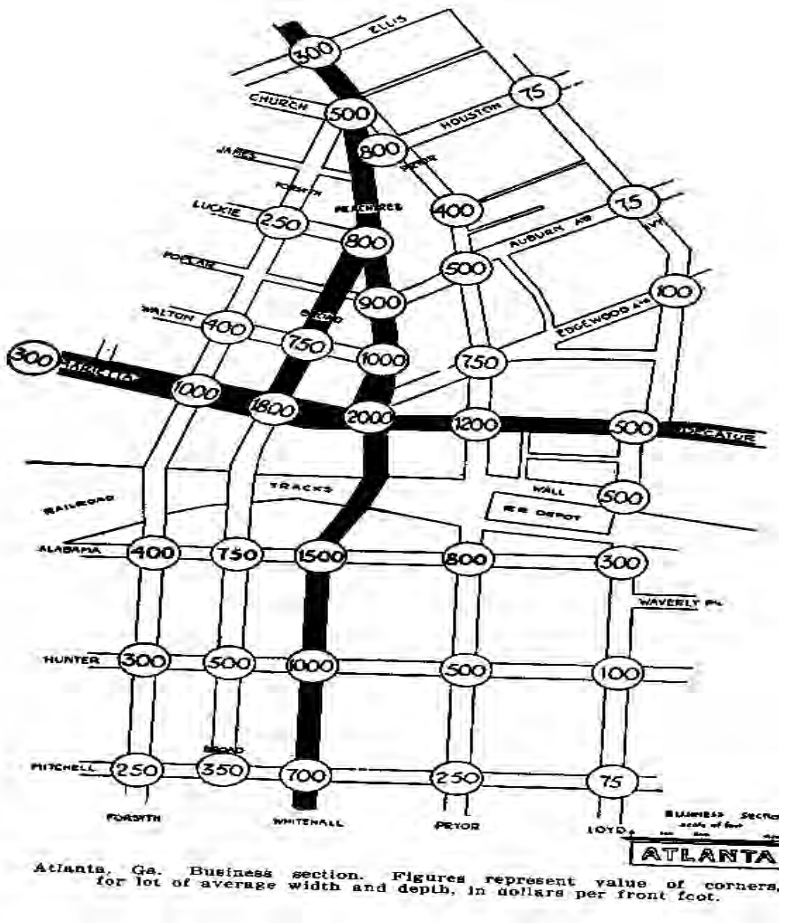


Transparency Drove the Market Through 1930, Note Peak-Value at Peachtree, Marietta & Decatur

- Transit-Oriented Atlanta



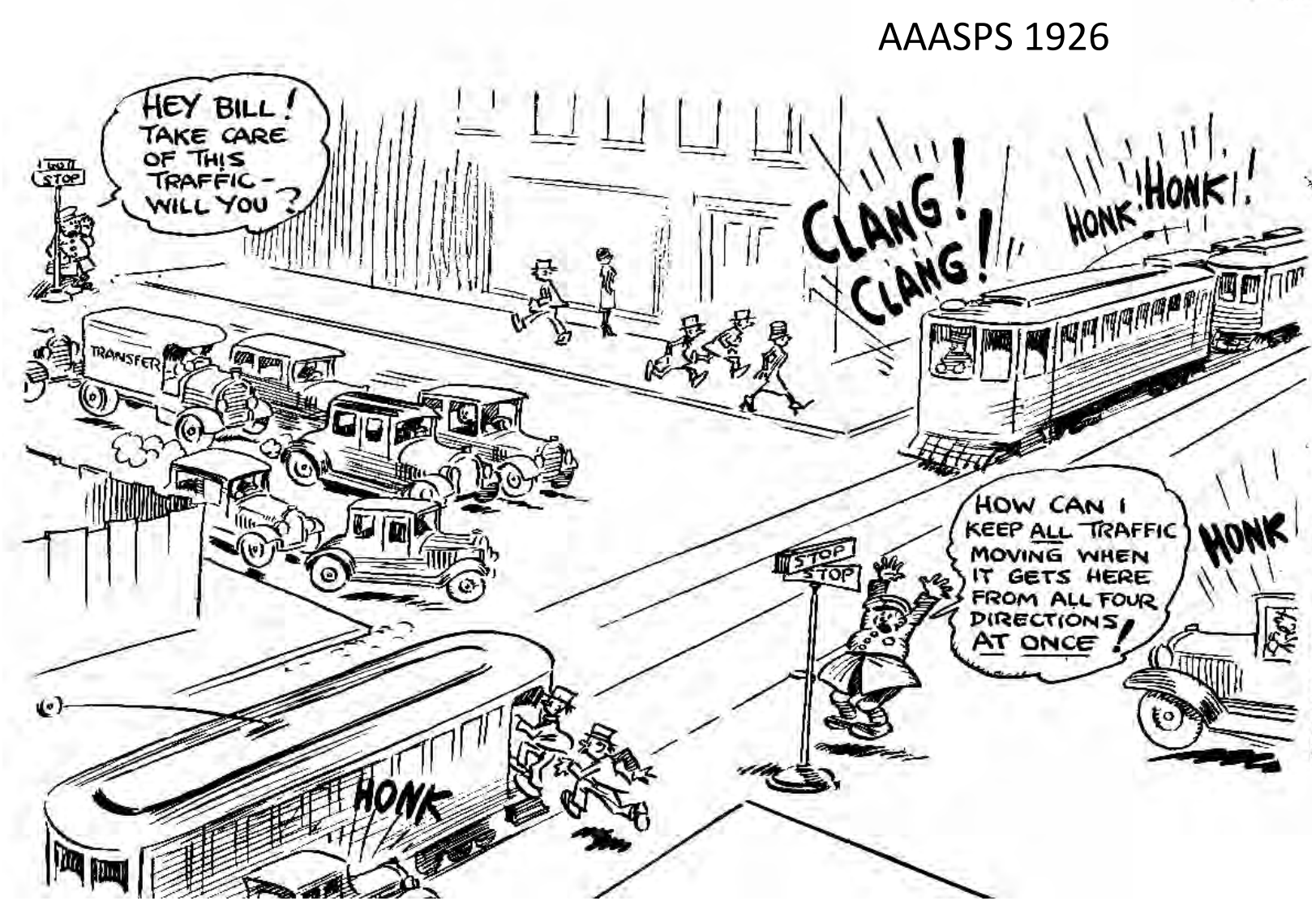
- Economically Legible Atlanta



Atlanta, Ga. Business section. Figures represent value of corners, for lot of average width and depth, in dollars per front foot.

There Was Competition for Public Space

AAASPS 1926

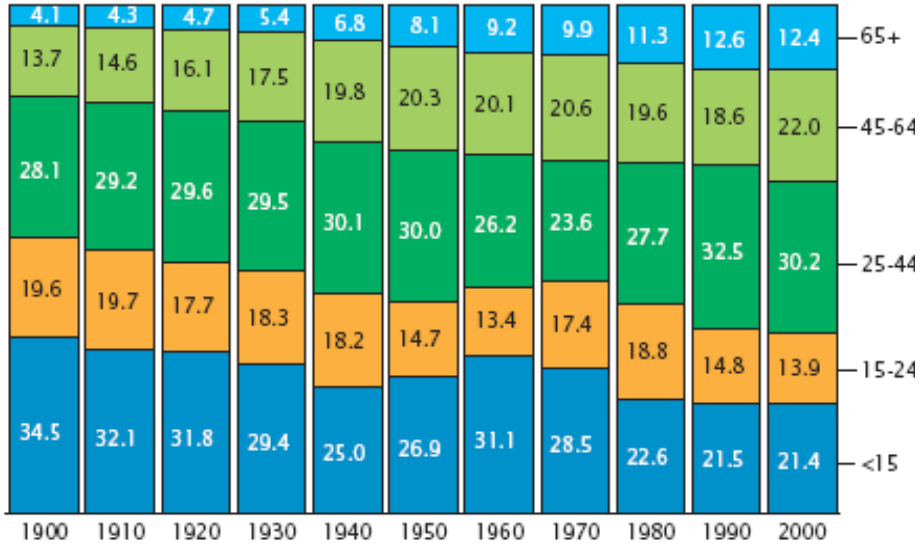


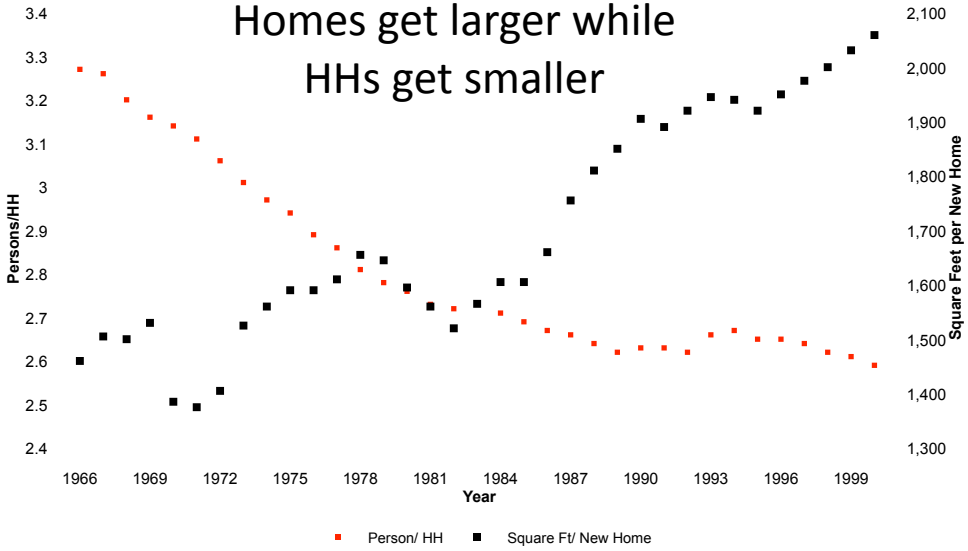
Most Places Abandoned Their Transit Systems

And Public Policy Favored a Different Vision

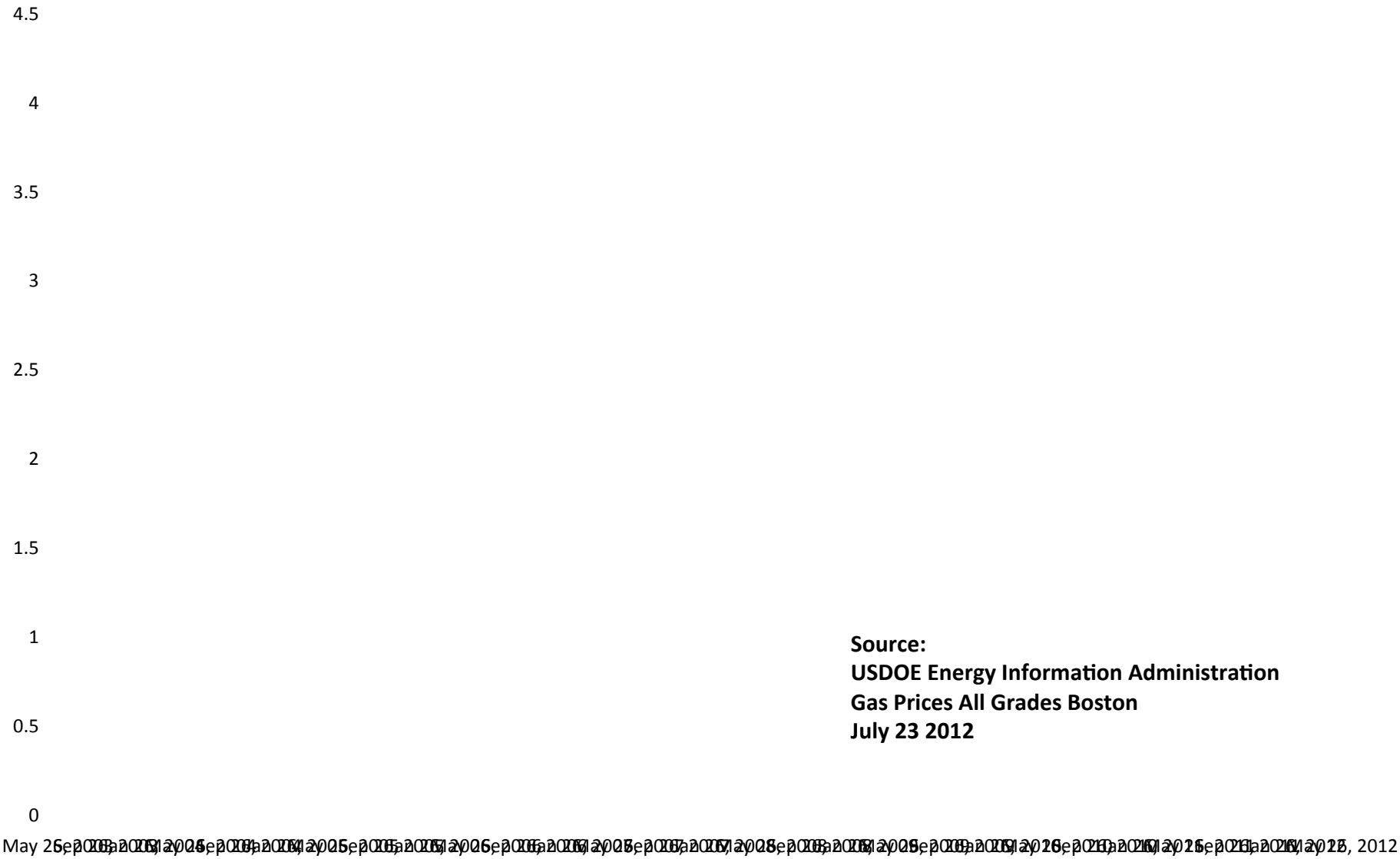
Demographic & Price Trends Promote Urbanism and Demand Reduction

- Continuous drop in household size since 1790
- HH Size dropped from 3.3 to 2.6 1960-2000 while home size built increased 1400-2100 square feet
- “Married w/kids” only 23% of total, HHs w/Kids 30%
- Rapid increase in older HHs



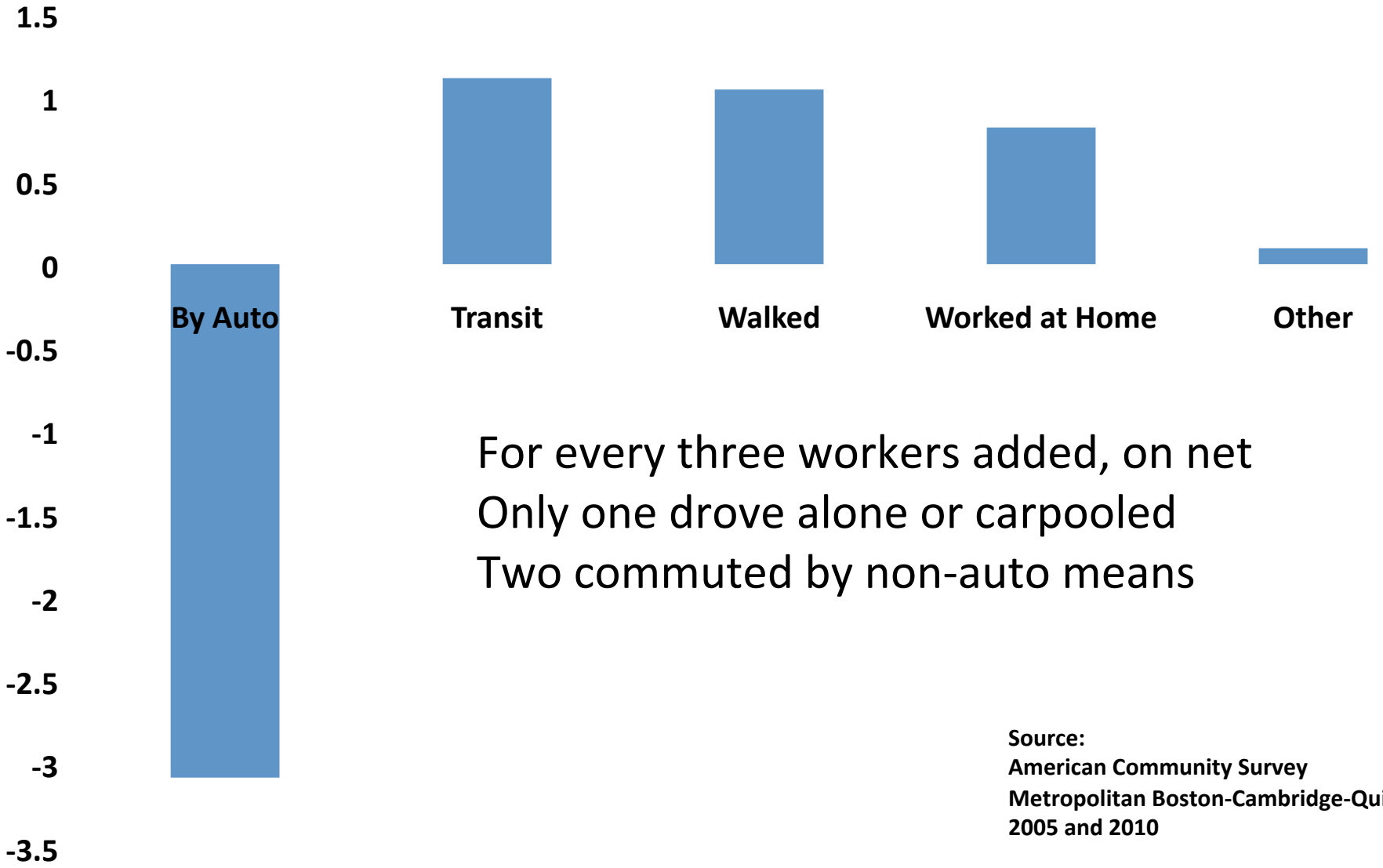


Boston Gasoline Prices March 26 2003-July 23 2012 Peak-to-Trough over 2.5 to 1



Source:
USDOE Energy Information Administration
Gas Prices All Grades Boston
July 23 2012

From 2005-2010, While the Metro-wide Workforce Increased by 129,000, the Percentage Commuting by Automobile Dropped 3.1%



For every three workers added, on net
Only one drove alone or carpooled
Two commuted by non-auto means

Source:
American Community Survey
Metropolitan Boston-Cambridge-Quincy
2005 and 2010

How the Market Views This Region's Economy
Moody's Analytics May 2012

Strengths

- Business capital of New England.
- Access to skilled labor force and venture capital for emerging companies.
- Dynamic high-tech and biomedical R&D
- Large healthcare and education industries provide stability to the labor market.

Weaknesses

- Very high business and living costs.
- Highly exposed to cyclical financial and tech industries
- Student loan delinquencies growing faster than nationwide

Upside Forecast

- Stronger national growth drives professional/business services gains.
- Biotech becomes major growth driver.
- National healthcare reform boosts industry employment.

Downside Risks

- State cuts affect local economy
- Severe federal budget cuts reduce defense, education spending.
- Foreign immigration falls sharply.
- Housing recovery falters
- Employment growth rank 177/392 2011-2013 drops to 263 2011-2016

An Urban Asset: Location Efficiency = A Measure of Accessibility & Convenience & a Spatial Analogue to Thermodynamic Efficiency

- Density, Transit Access (Proximity, Frequency, Connectivity), and Amenities Determine Transportation Demand
- Statistics Used to Estimate Likely Travel Demand
- Demand is Verified by Measuring Vehicle Ownership and Extent of Use
- Demand is Then Valued in Dollars and Cents

How is Location Efficiency Determined- Explain Using Regression? (Memorize This…Or…..)

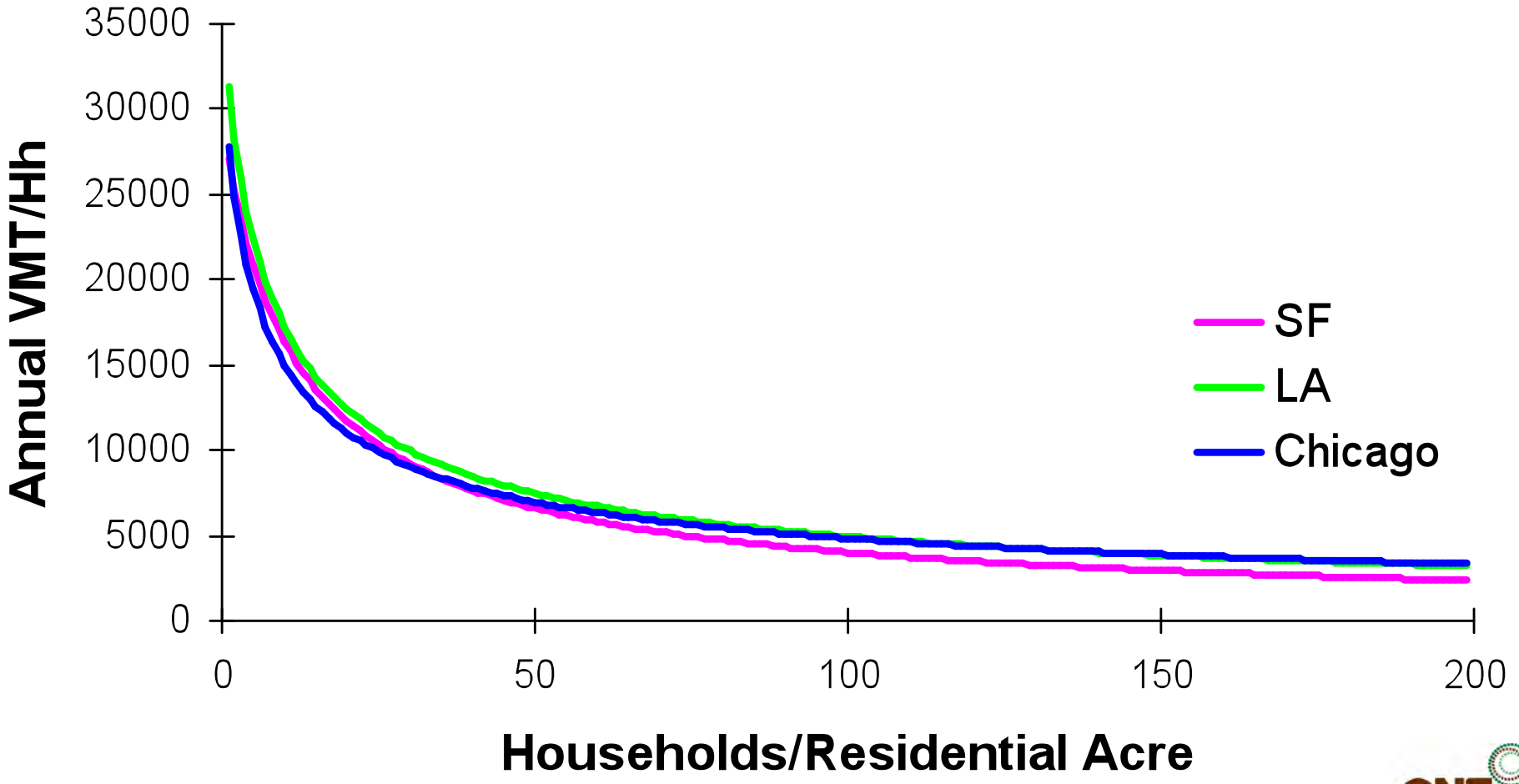
$$\frac{Veh}{Hh} = 4.722\left(22520 + \frac{H}{RA}\right)^{-0.3471}\left(1 - e^{-\left(0.000112\frac{\$}{P}\right)^{1.2386}}\right)\left(1 + 1.0519\frac{P}{H}\right)(Tr + 60.312)^{-0.2336}$$

$$\frac{VMT}{Veh} = 10386\left(0.5041 + \frac{H}{TA}\right)^{-0.0419}\left(1 + 0.02759\frac{P}{H}\right)\left(1 - 0.0704\sqrt{Ped}\right) + 0.01743\left(\frac{\$}{P} - 22136\right)$$

Peer-reviewed by Brookings and National Academy of Sciences 2008

Easily Visualized Graphically— Location Efficiency:

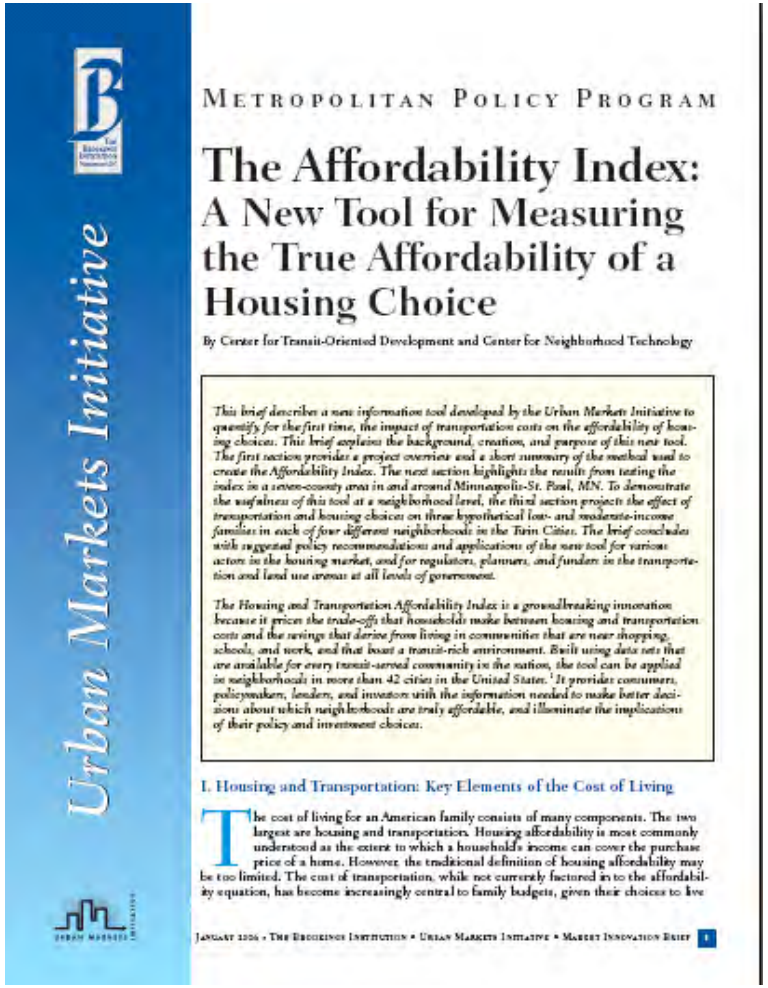
As Density + Transit Choice Increase, VMT Goes Down. Curve Works for 877 US Regions, London, Paris, &and 37 Japanese Cities



Evolving a Newer Way to Measure and Communicate "Affordability"

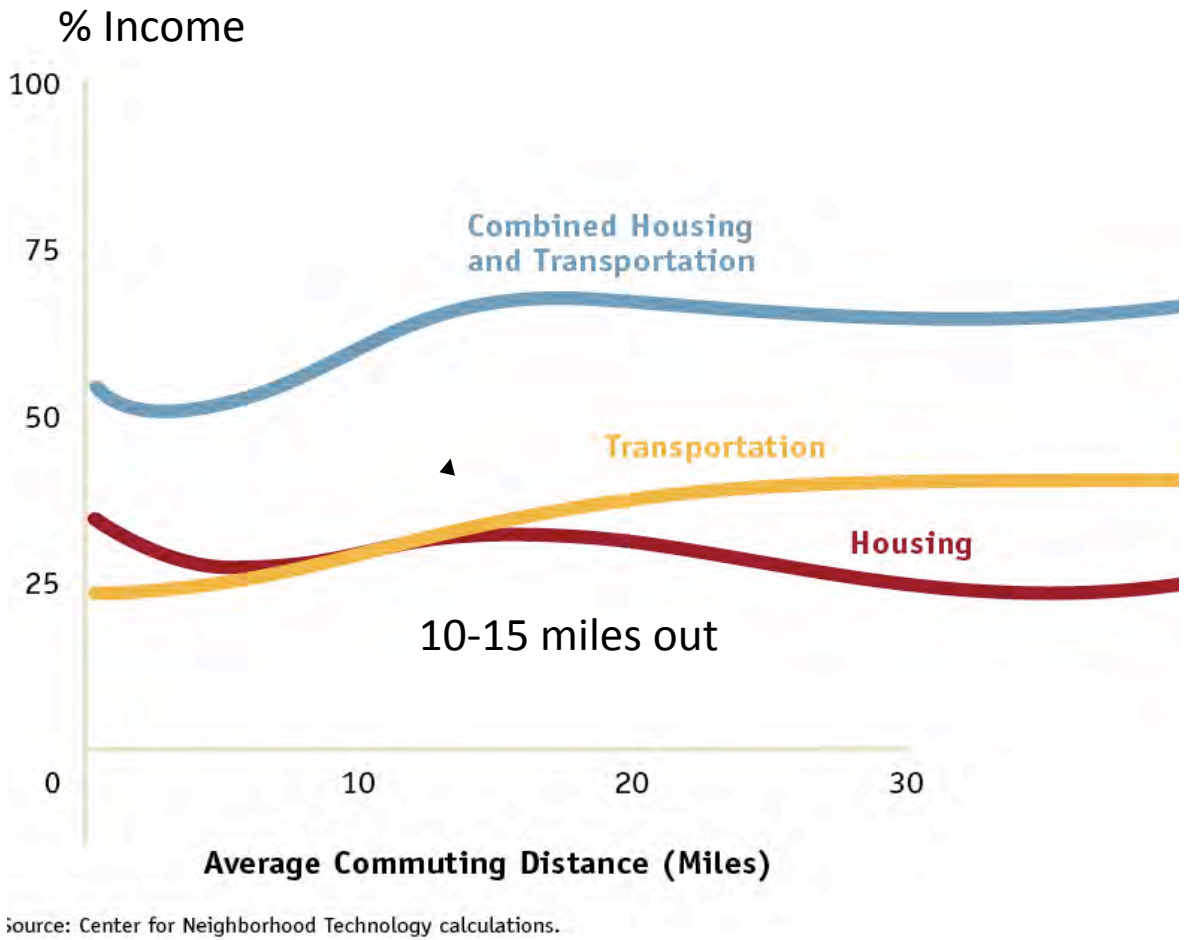
https://htaindex.org

- Historically: Traced to 19th Century ideal—A Week's Pay for a Month's Rent
- Today benchmark affordability is defined as housing costs/Income less than or equal to 30 Percent of target population AMI
- Problem—Doesn't include cost of transportation



Effect of 'Drive 'til You Qualify': Transport Costs Can Exceed Housing Costs for HHs Earning $20-$50,000

- Transportation emissions can also equal or exceed emissions from residential energy
- Creates "driving to green buildings" challenge



Source: Center for Neighborhood Technology calculations.

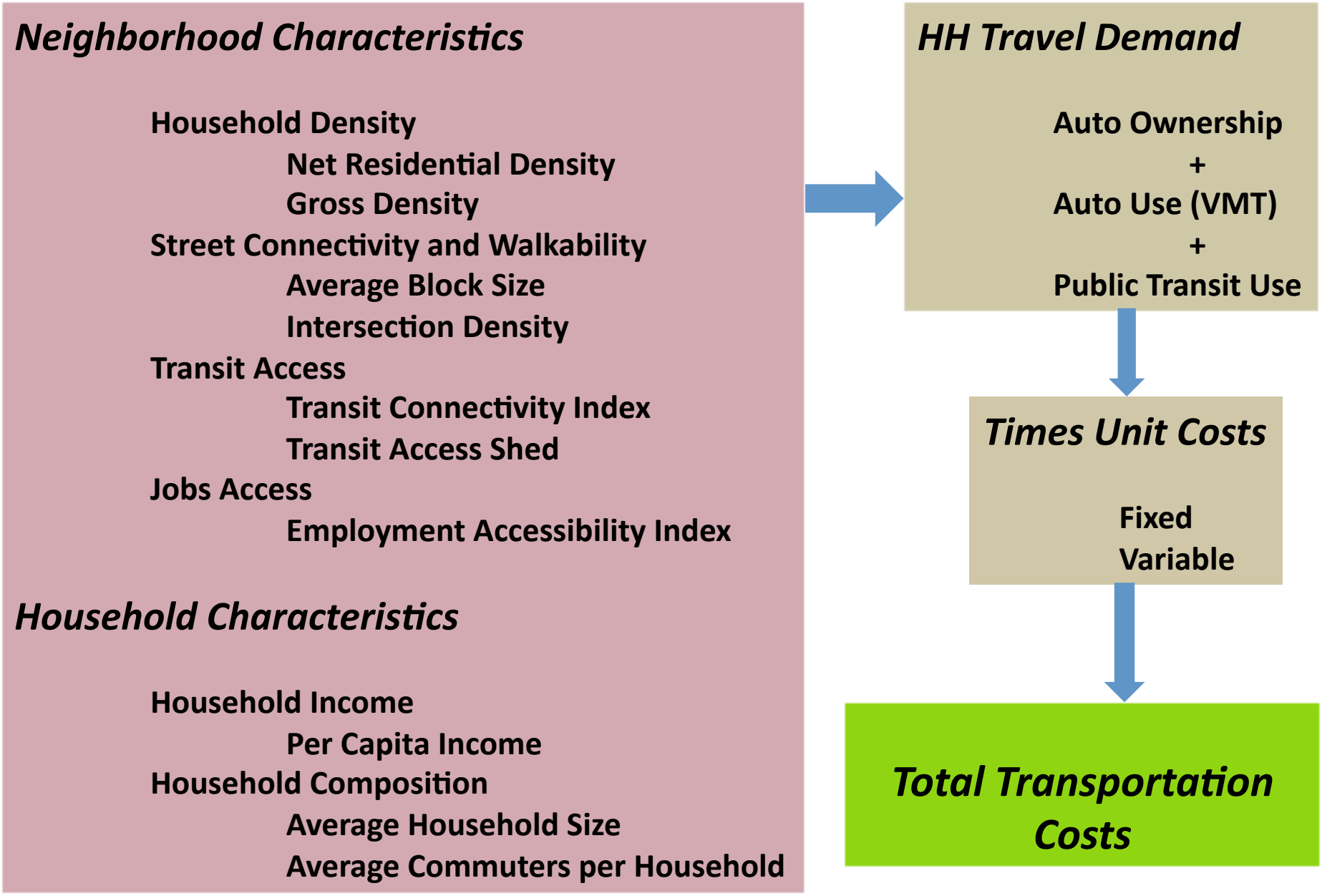
What is the Housing + Transportation Affordability Index?

A tool to measure the 2 largest household costs – *housing and transportation* – by neighborhood.

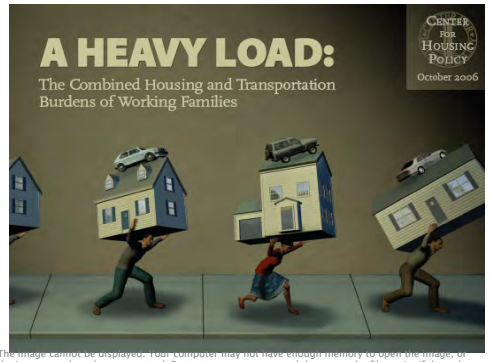
H+T Affordability Index Equation
$\text{H+T Index} = \frac{\text{(Housing Costs + Transportation Costs)}}{\text{Income}}$

By measuring these costs, the H+T Affordability Index is also measuring the quality, attractiveness, and convenience, of the neighborhood.

Data Used in Estimating Travel Demand and Costs

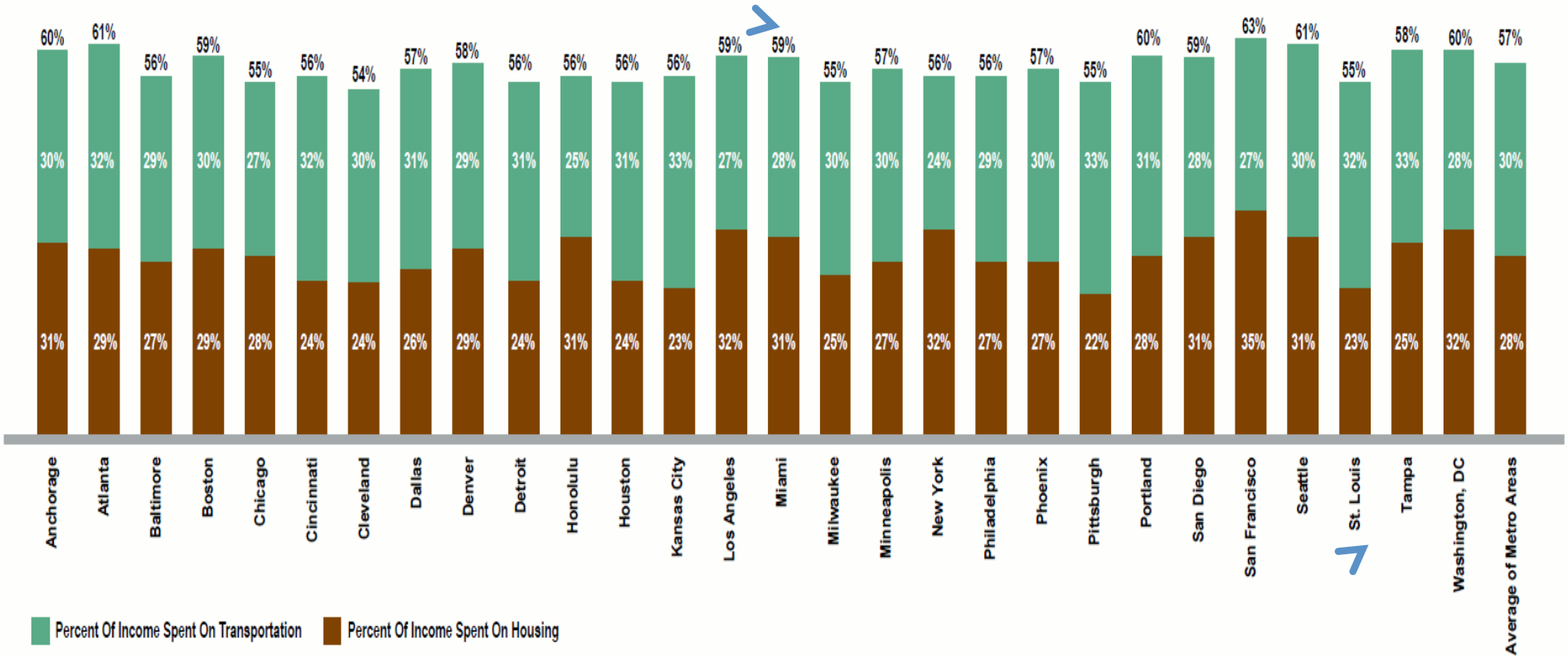


Housing + Transportation Costs Vary by Place Across the US



The image cannot be displayed. Your computer may not have enough memory to open the image, or the image may have been corrupted. Restart your computer, and then open the file again. If the red x still appears, you may have to delete the image and then insert it again.

Metropolitan Miami
28% for T + 31% for H = 59%

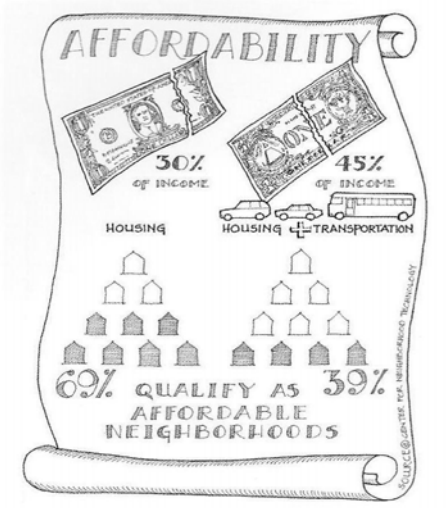


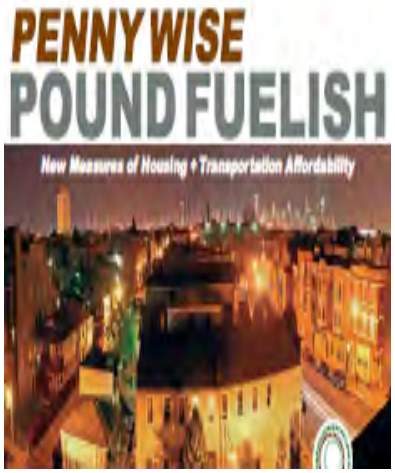
Metro Tampa
33% for T + 25% for H = 59%

Percentages for working families with incomes between $20k - $50k

CNT
Sustainable Communities Attainable Results

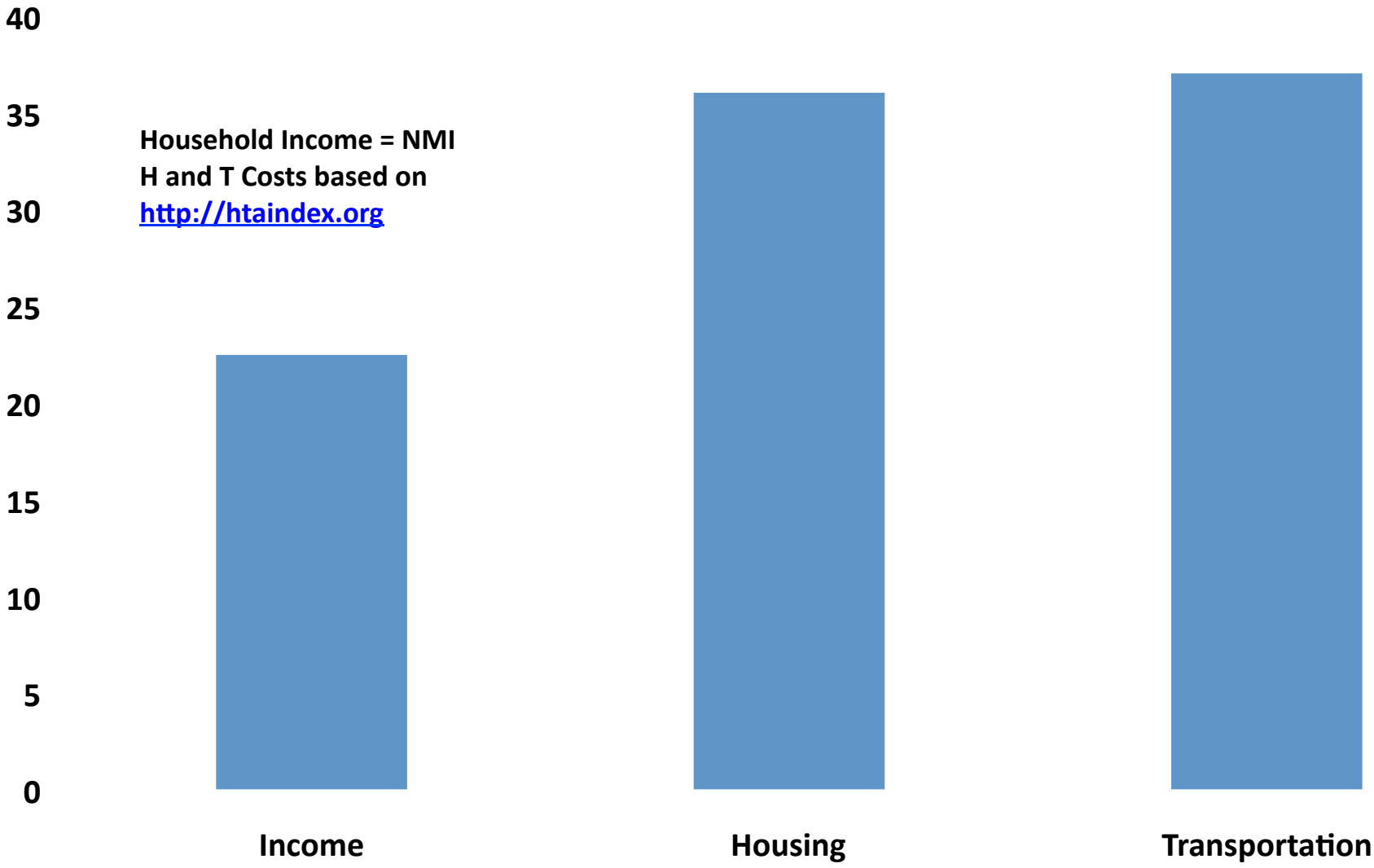
What We Found Nationally in our 2010 and 2012 Studies of all US Regions



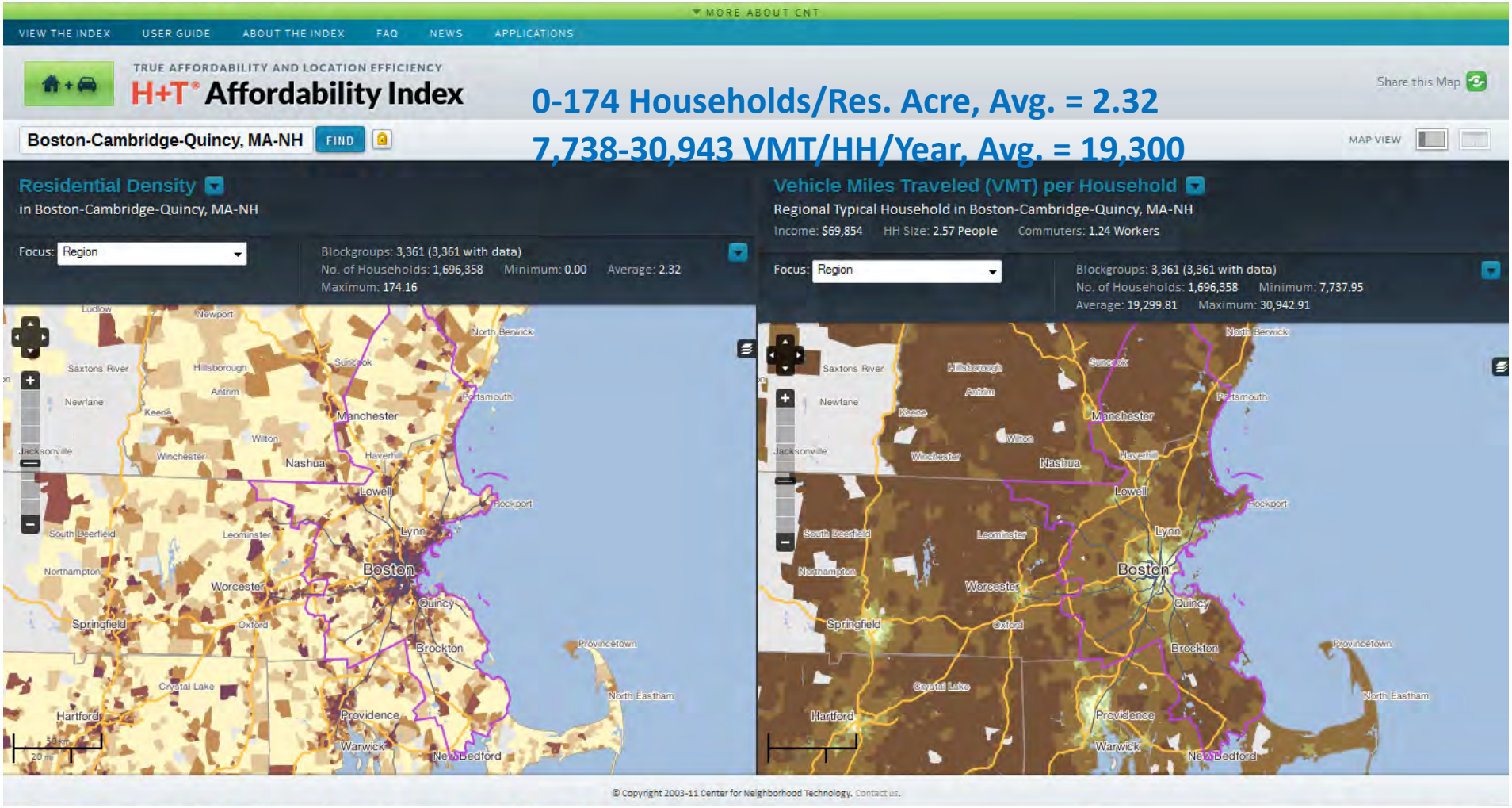


- 2010 using 2000 data—69% of US metro communities "affordable" using housing-only index; dropped to 39% using new Index setting goal of keeping H+T at < 45% of household income
- 2012 using 2005-2009 data—76% of communities look "affordable" using housing-only index, drops to 28% using H+T Index
- Household income nationally increased 23% 2000-2009, but housing increased 37% and transportation 39% respectively

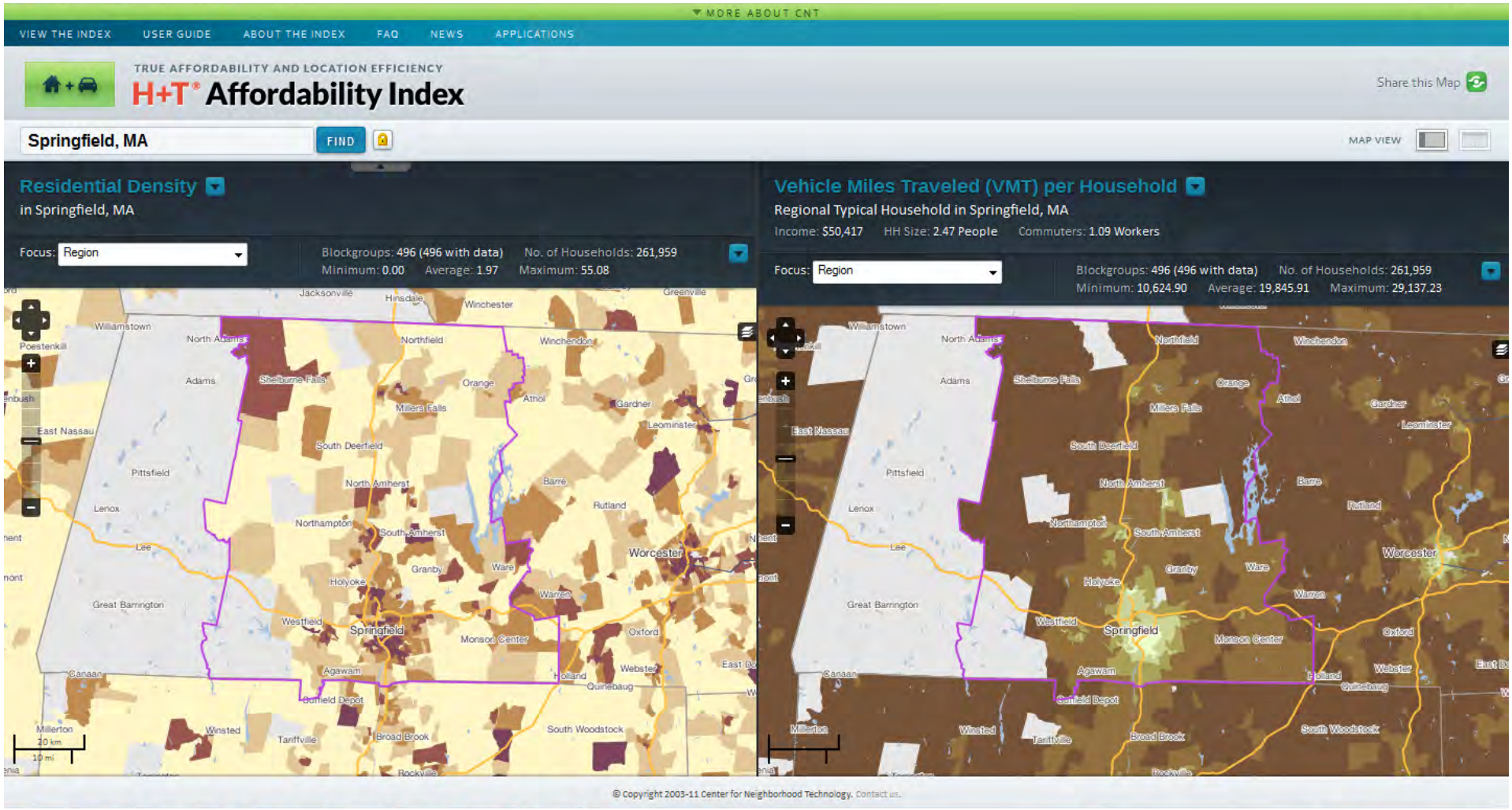
From 2000-2009, Boston Regional Household Income Rose 22.5%, While Housing Increased 36 and Transportation 37%, Respectively



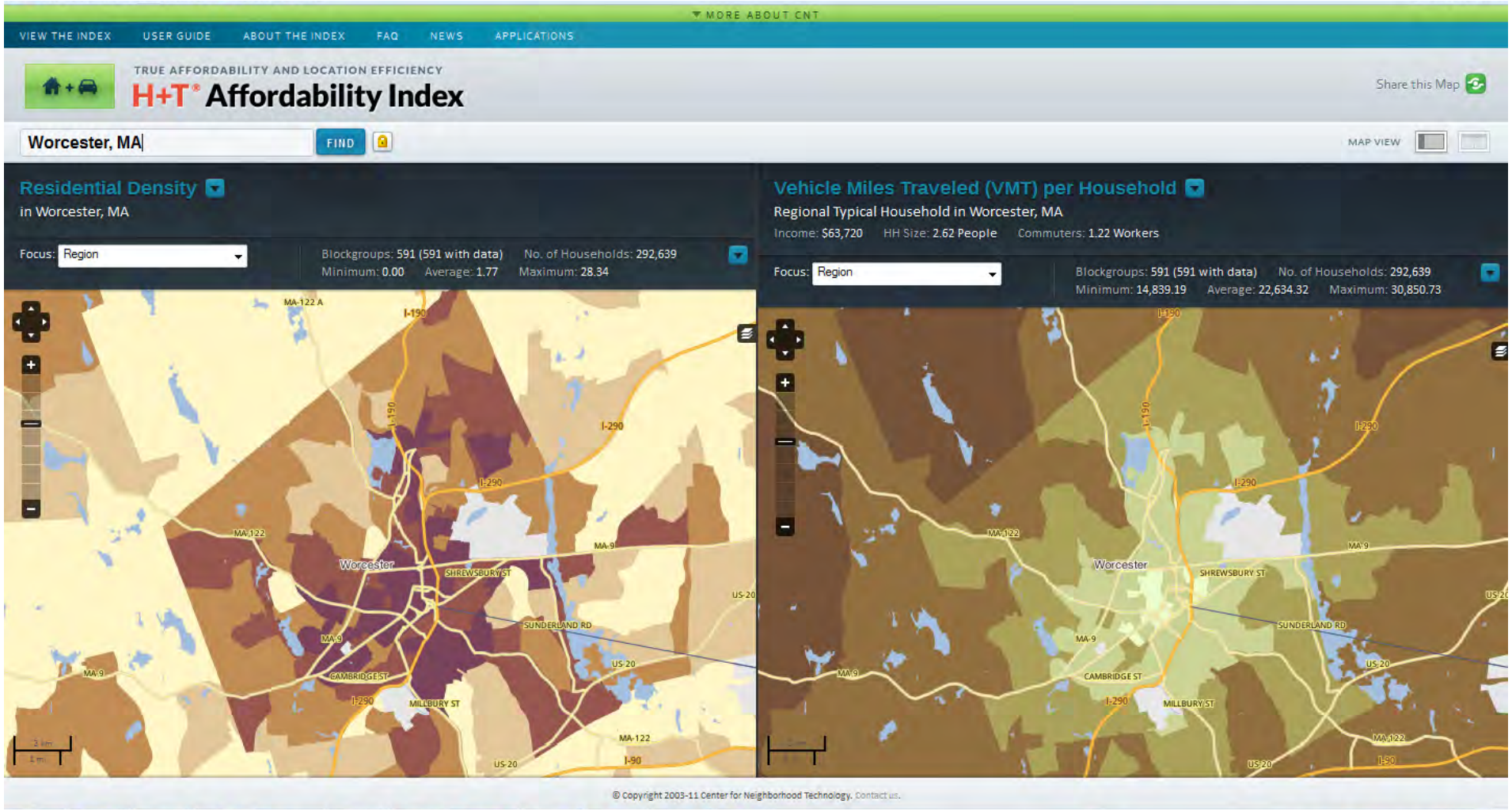
Boston MSA—Households/Residential Acre vs. Vehicle-Miles Traveled/Household/Year Mirror Images for 3,361 Block Groups



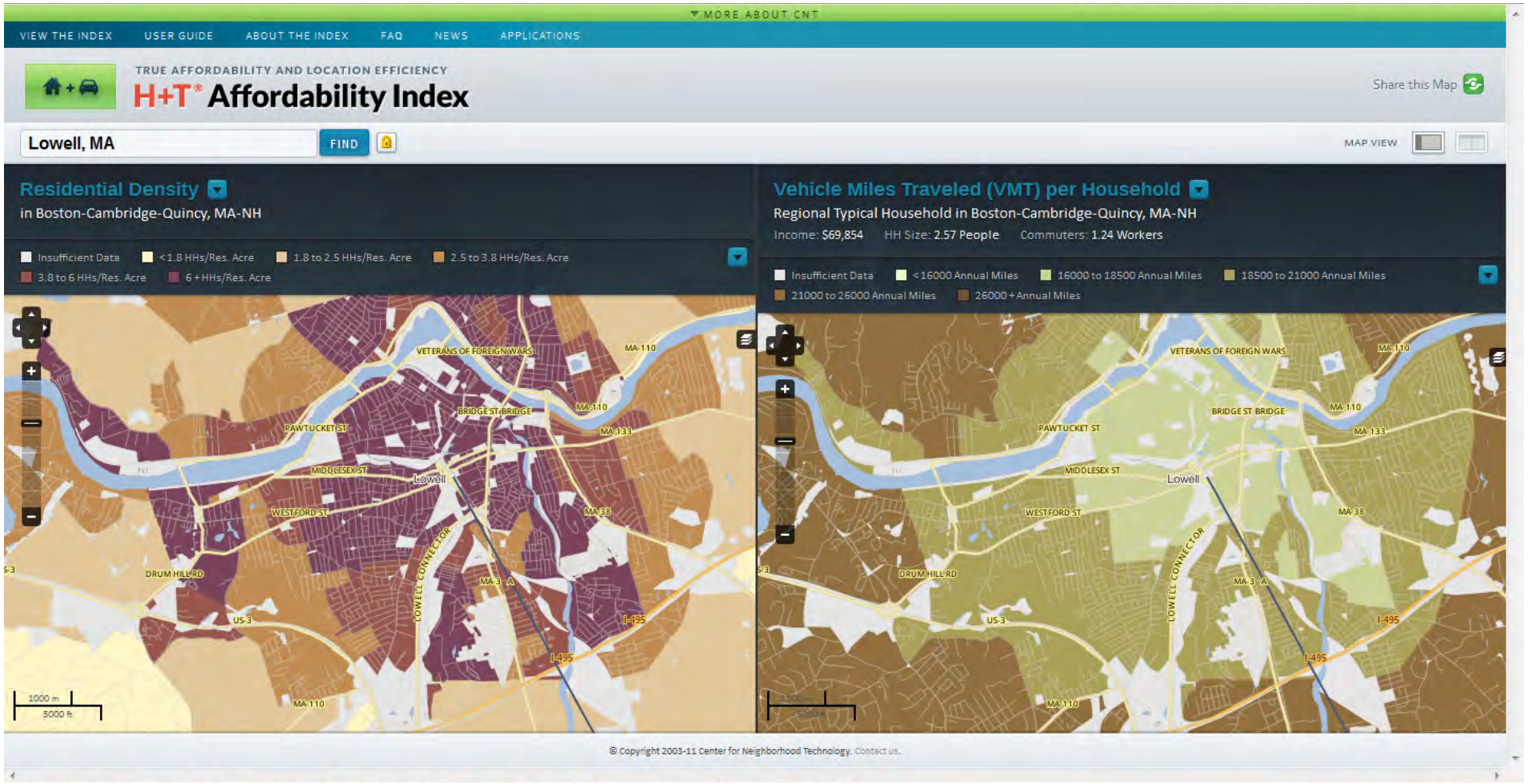
Mirror Images Again for Metro Springfield…



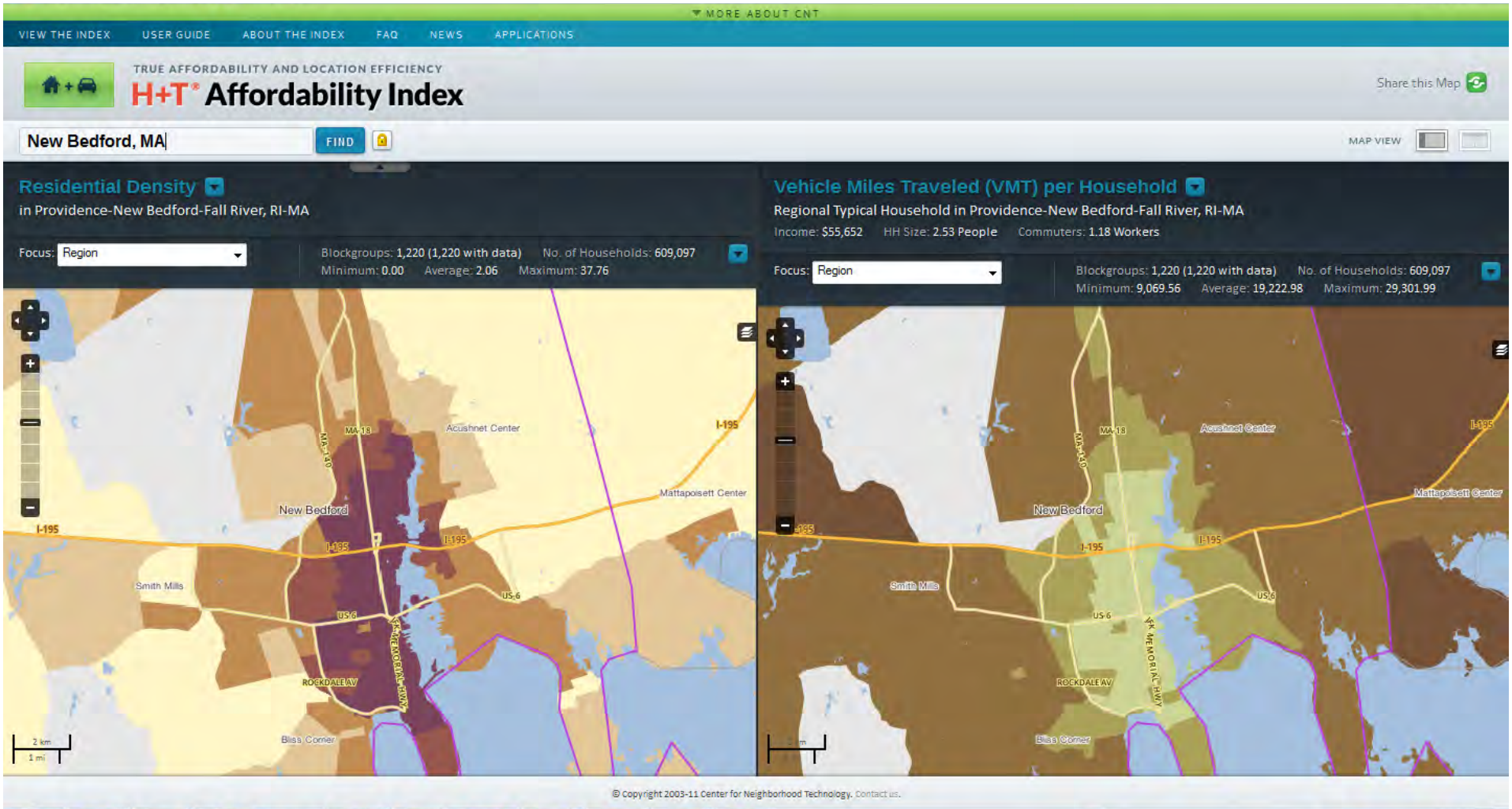
Metro Worcester…



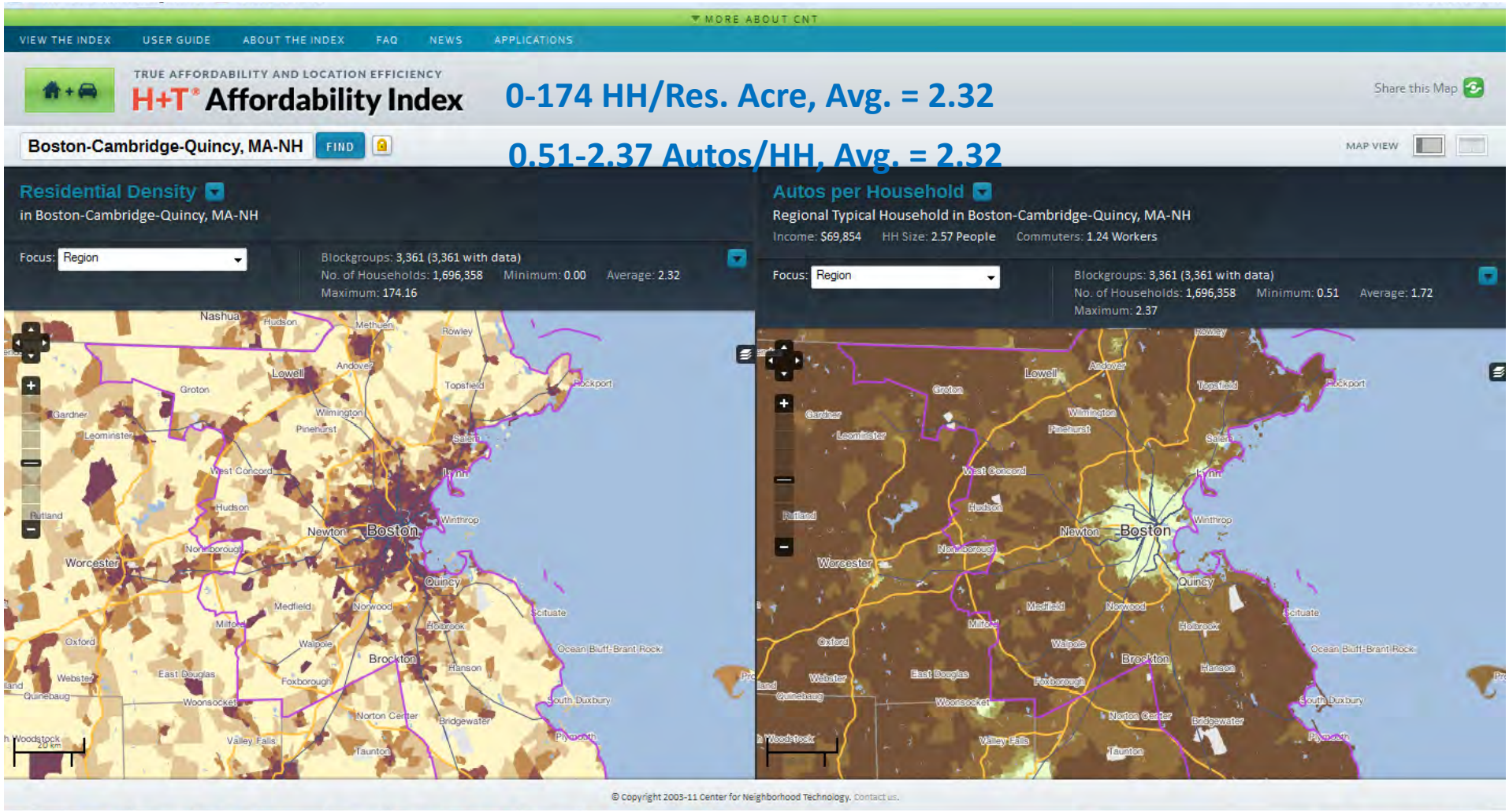
For the City of Lowell



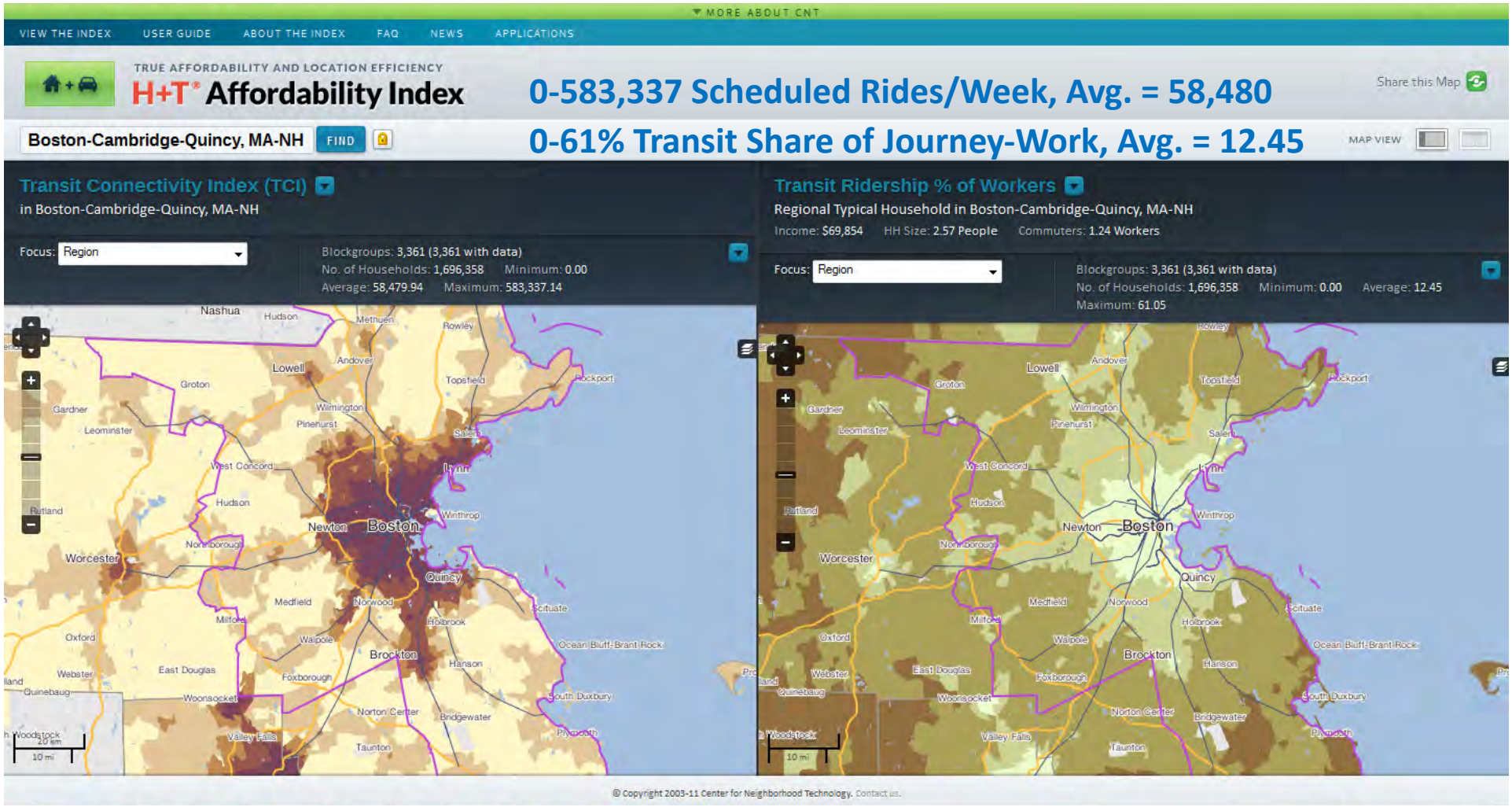
Or for the City of New Bedford



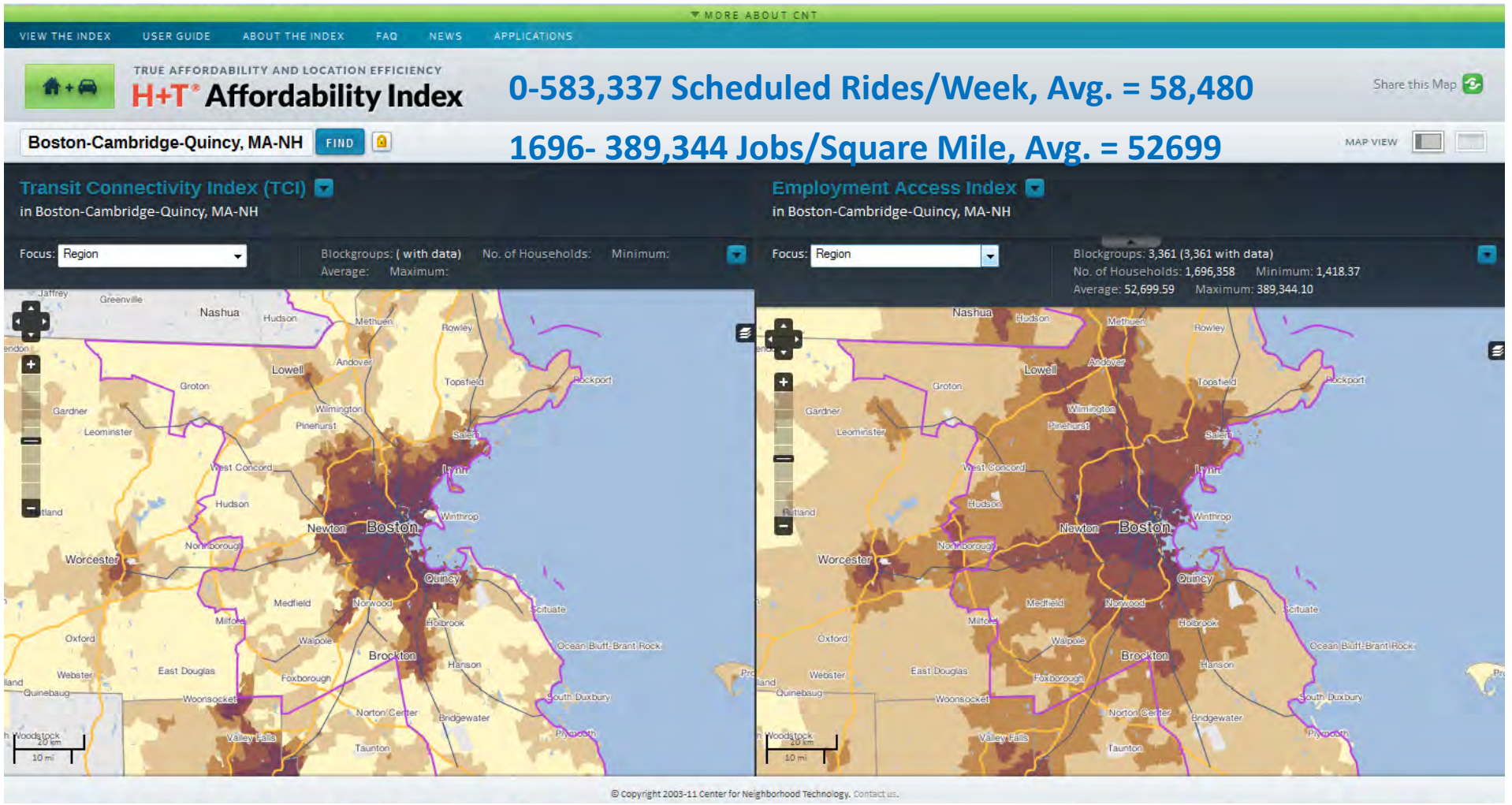
Mirror Images Again—Boston-Cambridge-Quincy Households/Residential Acre vs. Autos/Household



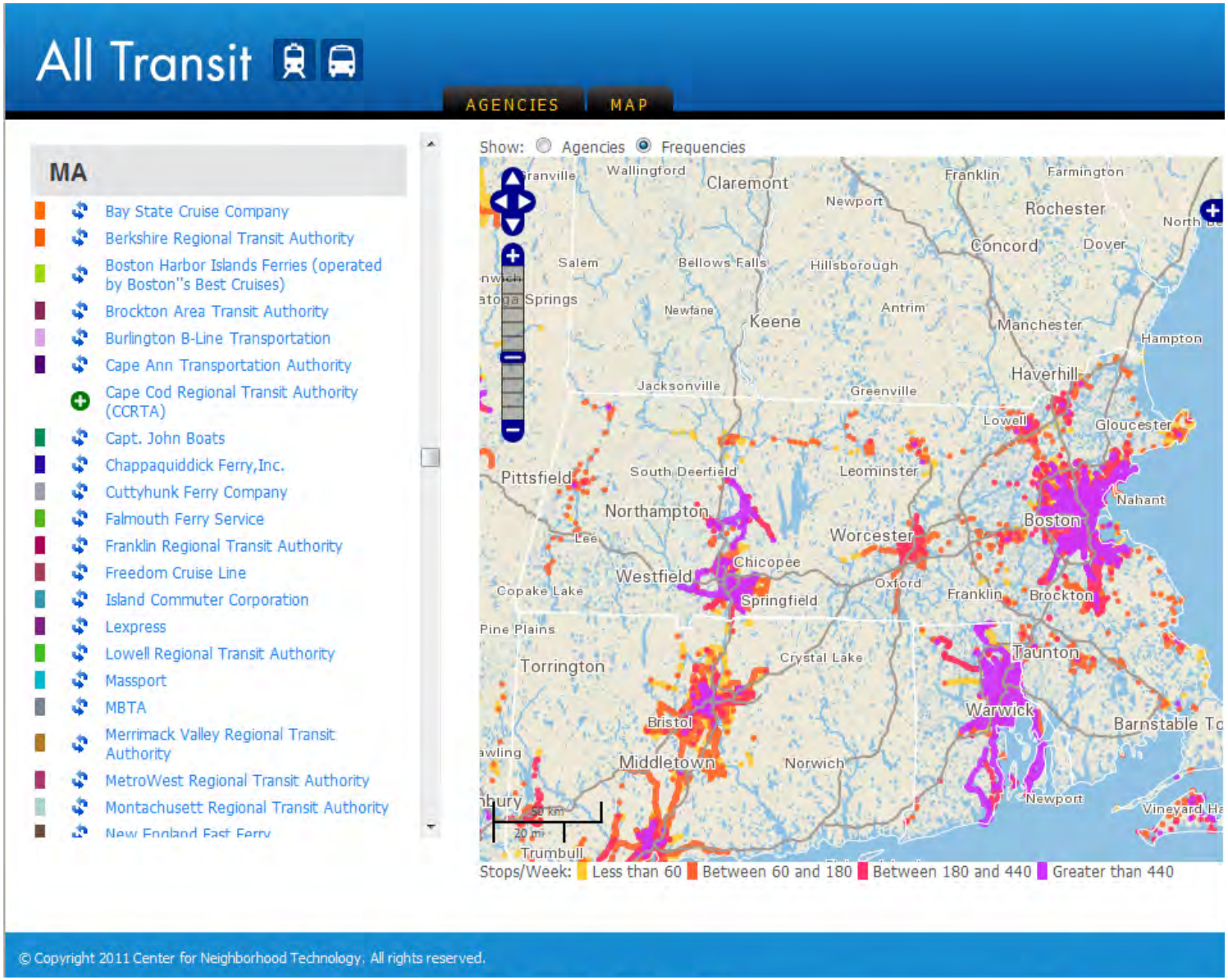
If You Build It, Run It Frequently, and Connect It Regionally, They Will Ride It—Transit Service Level Helps Predict Observed Level of Use



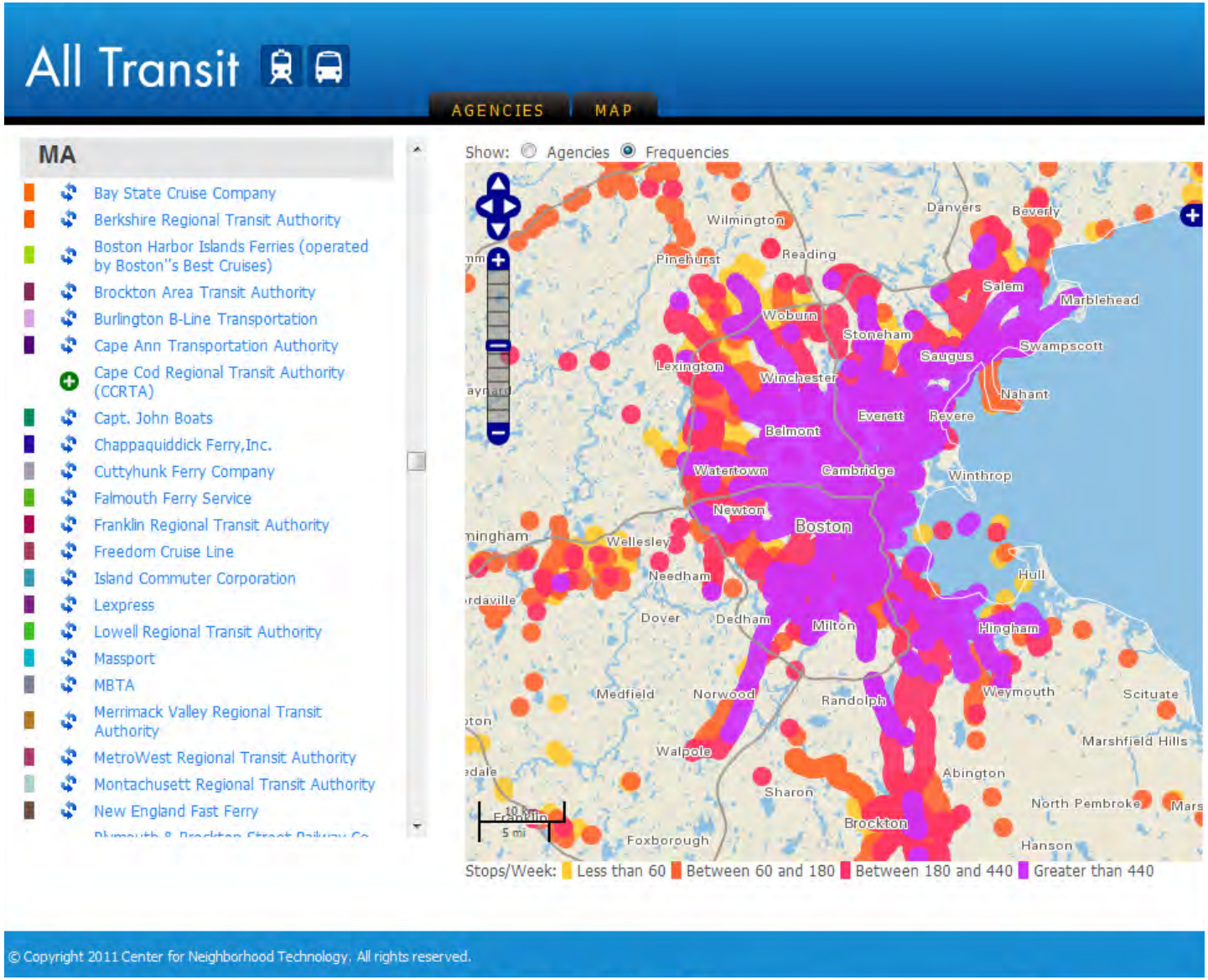
But Transit Level of Service Needs to Match up With Distribution of Job Centers



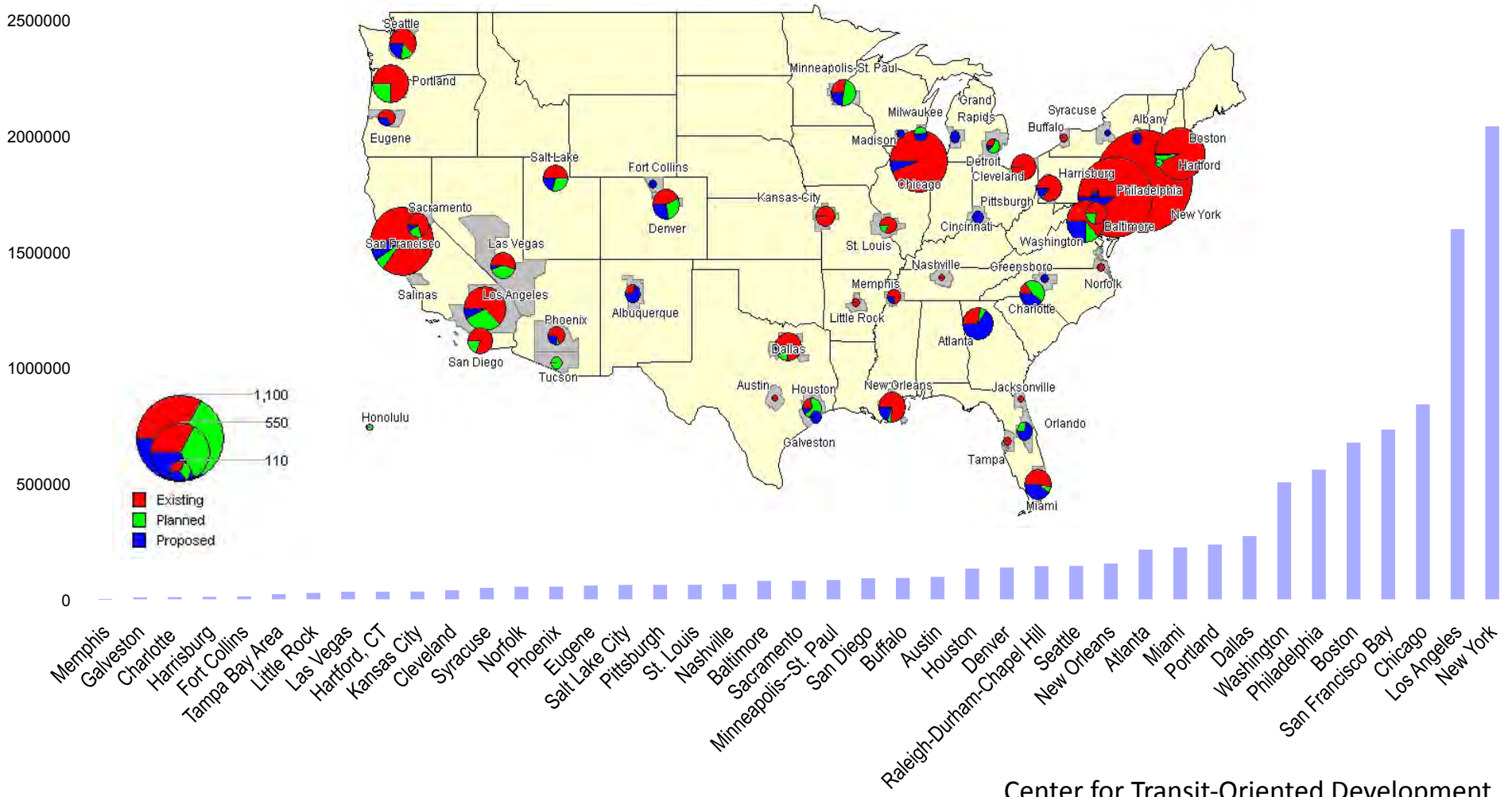
Transit Systems Do Exist Across the State, But Not All Provide Equal Coverage or Service



In Boston, the MBTA alone offers 237 Routes of Fixed-Guideway + Bus Service



25% of net new American HHs will "demand" housing near transit in 2030—



5-Year Growth Fixed Guideway Stations

	2012	2007	Growth
Existing	4416	3776	640
Proposed	1583	833	750
Total	5999	4609	1390

CTOD TOD Database
http://toddata.cnt.org

Center for Transit-Oriented Development
Hidden in Plain Sight—
The Coming Demand for Housing Near Transit
CTOD for FTA/HUD, 2005 and
Updated Demand Estimate Feb. 2007

Transit Services in the Boston Region Added 43 stations in a decade to the 282 existing in 2000, with at least 17 more planned for the Fairmount Line, MBTA, and other commuter e.g. South County

TOD Database LOG OUT USER GUIDE STATION DOWNLOADS http://toddata.cnt.org CTOD CENTER FOR TRANSIT-ORIENTED DEVELOPMENT

Boston Region

Note: This region is not fully covered by all datasets.

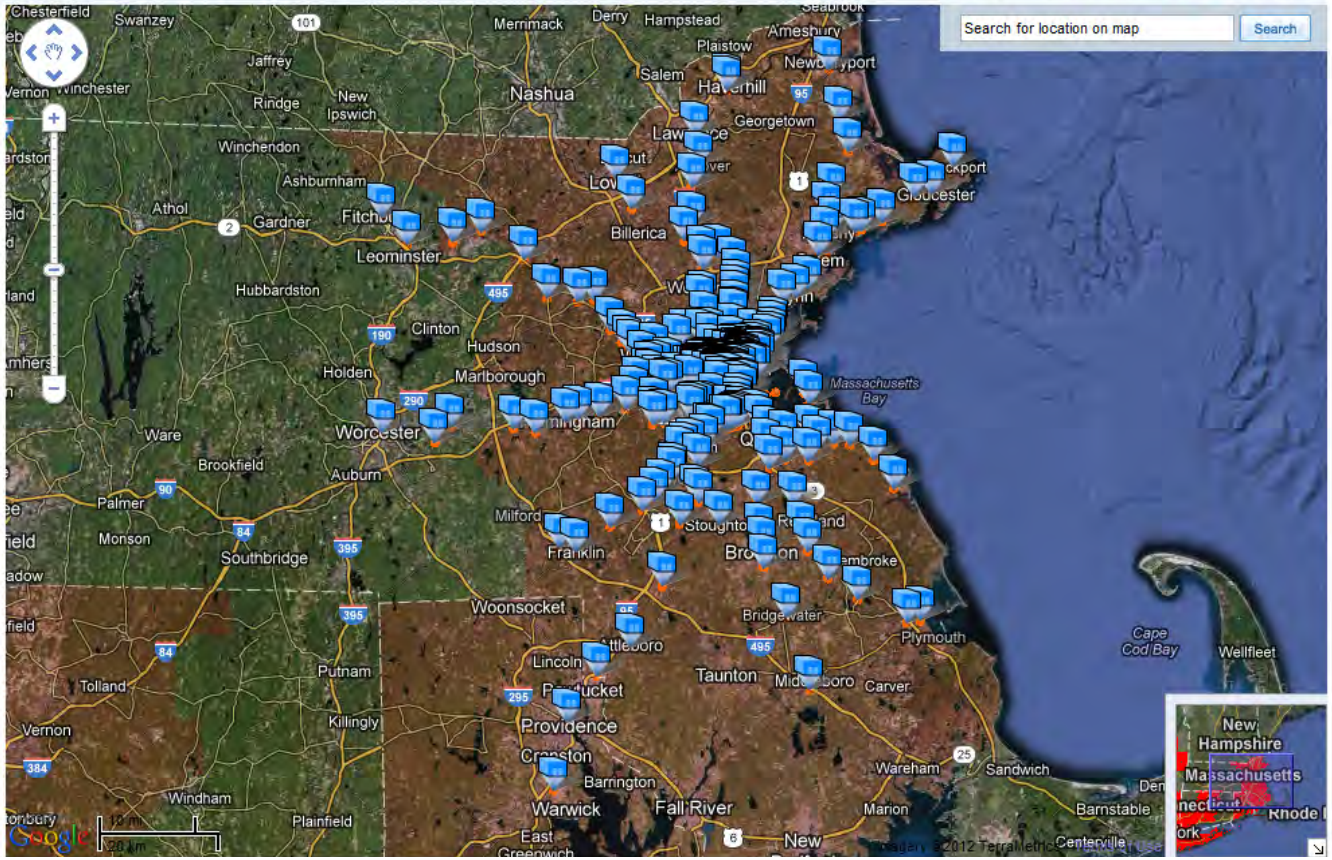
Existing Transit
- Amtrak
- Boston Harbor Islands Ferries
- Chappaquiddick Ferry,Inc.
- MBTA
- Salem Ferry

Planned Transit
- Boston Fairmount Line
- Green Line Extension
- Orange Line
- Pawtucket/Central Falls Commuter Rail Station
- Silver Line Phase III
- South County Commuter Rail

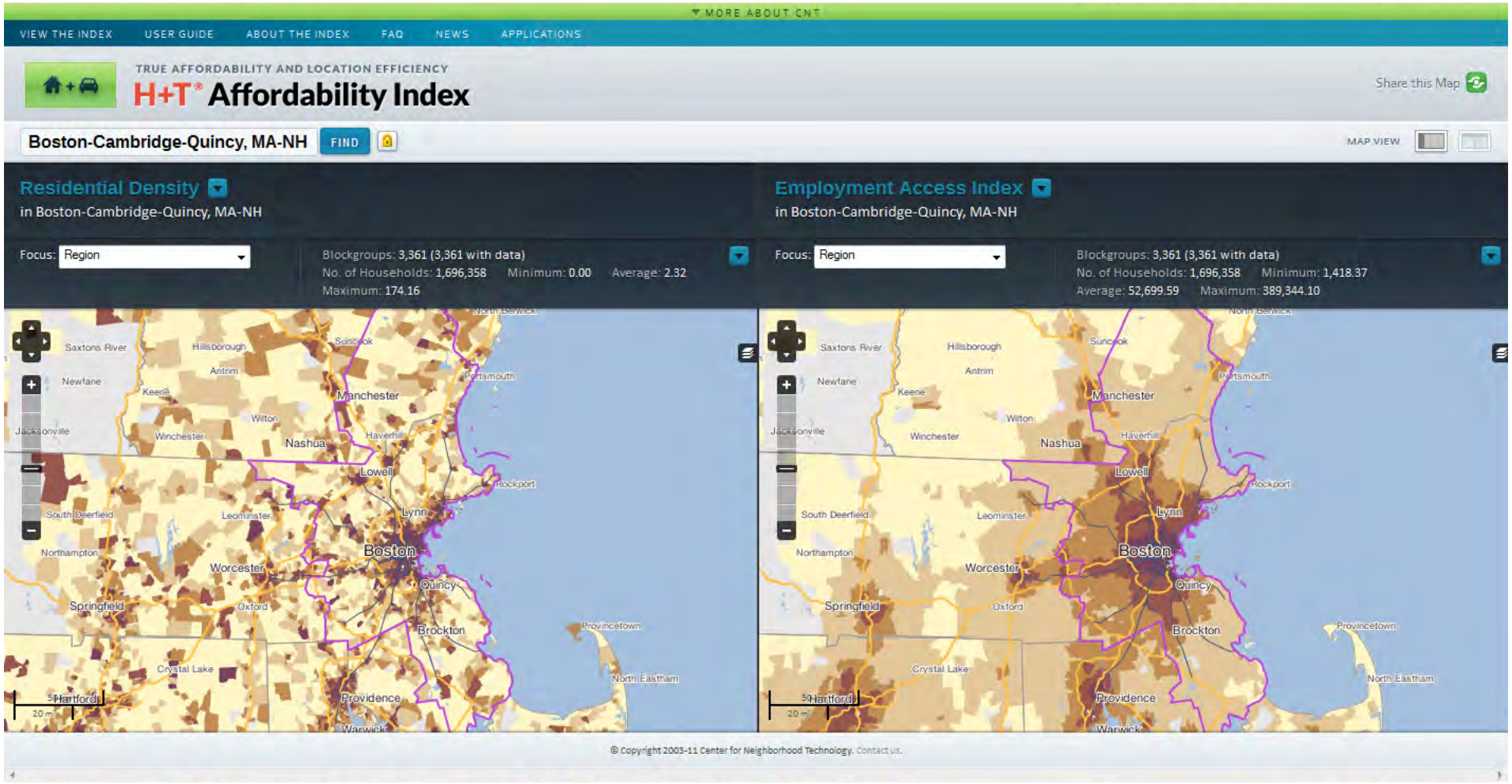
Proposed Transit
- Green Line Boston College (B)

Report Data Geographies Full Report

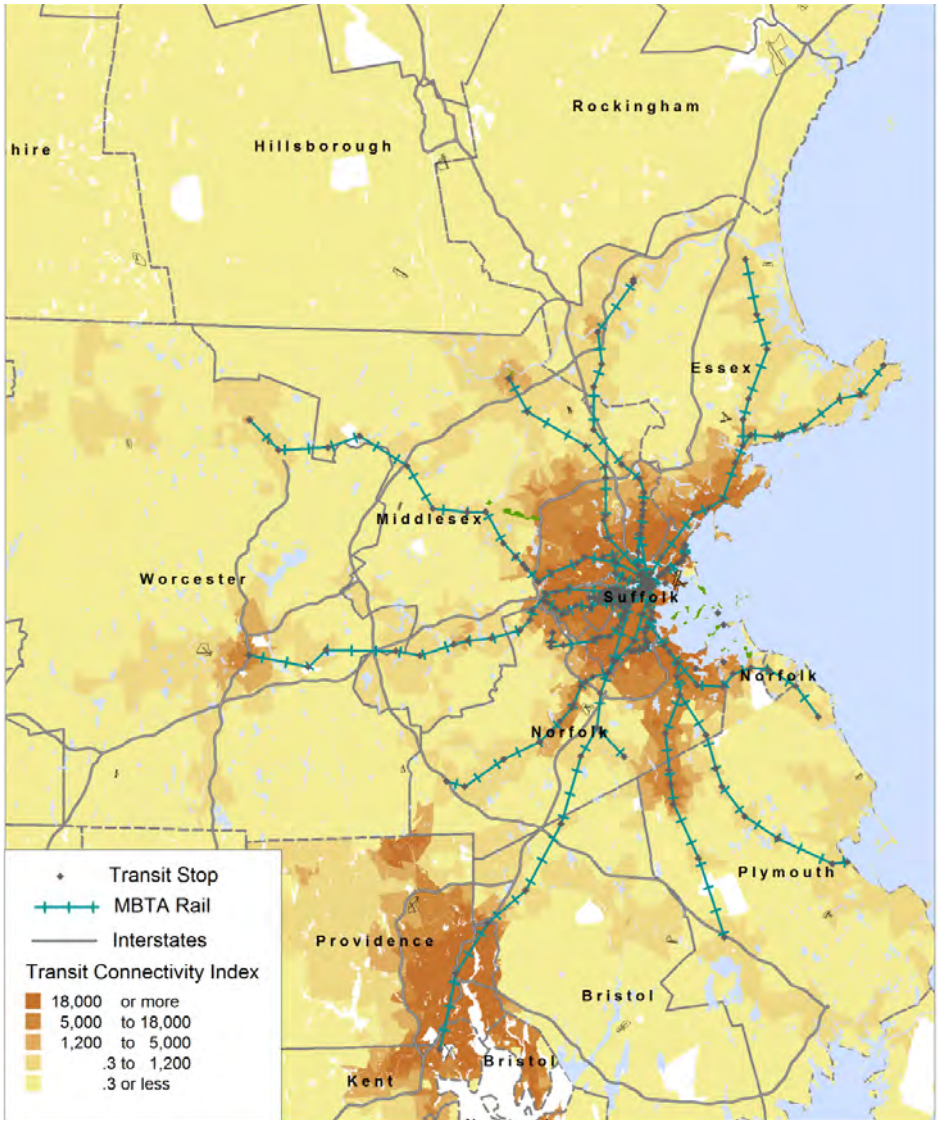
Boston Transit Region:	
Population 2000: (3)	5,584,749
Population 2010: (4)	5,734,888
Jobs 2002: (5)	432,391
Jobs 2009: (6)	437,227
Median Household Income 2000: (7)	51,574
Median Household Income 2009: (8)	66,223
Station .5 Mile Transit Zone: MBTA Blue Line; Airport Station	
Year Opened: (1)	Pre-2000
Latitude: (2)	42.374262
Longitude: (2)	-71.030395

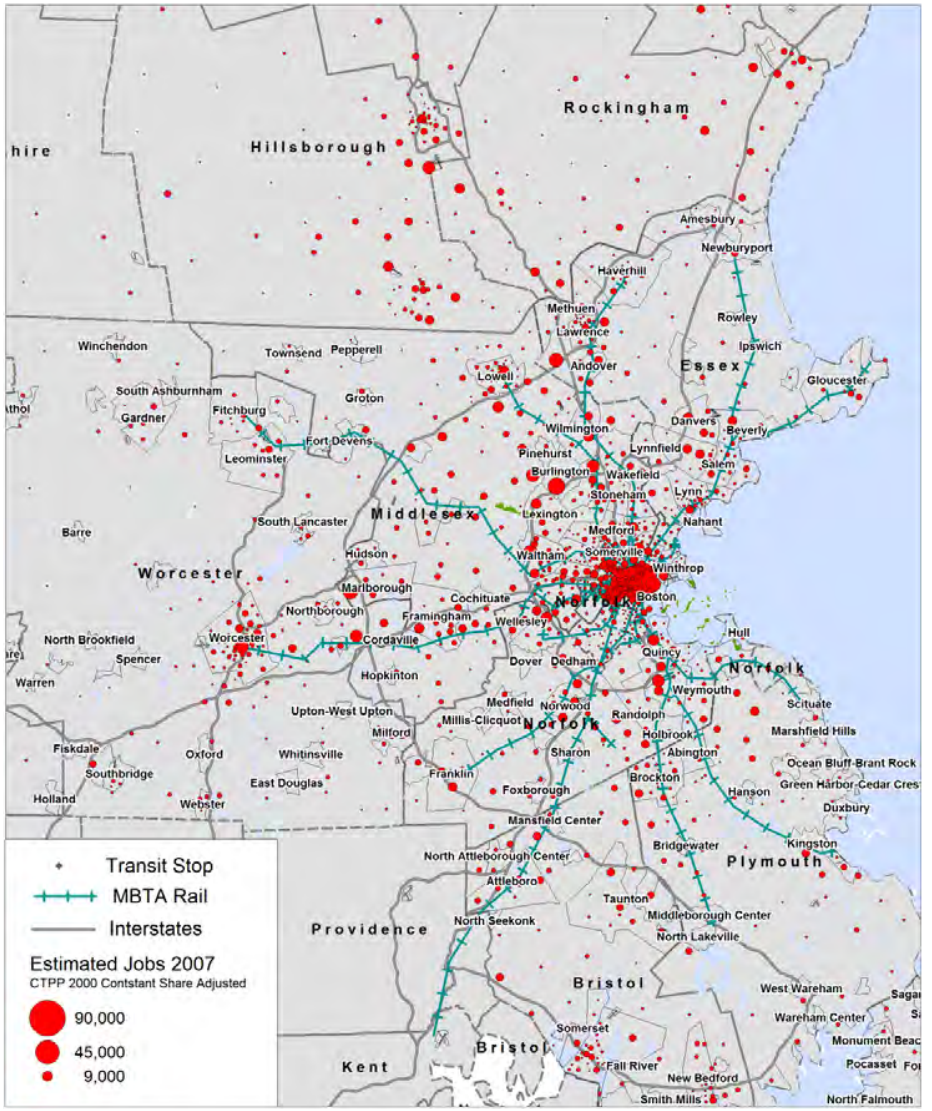


While residential and employment density have a strong relationship, the region does have significant spatial mismatch

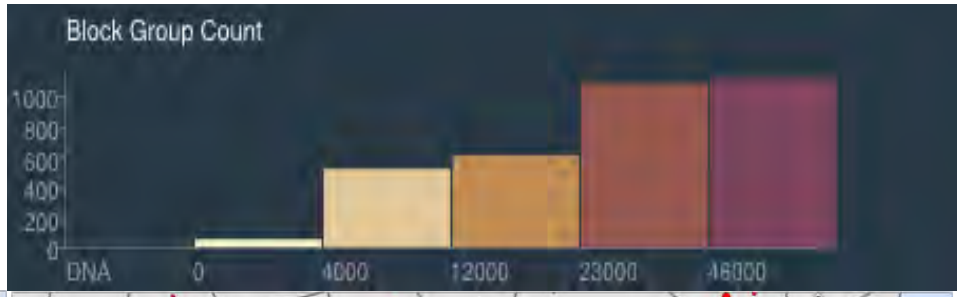


36% of region's HHs live in areas with 18,000 scheduled rides/week or more, but 64% do not

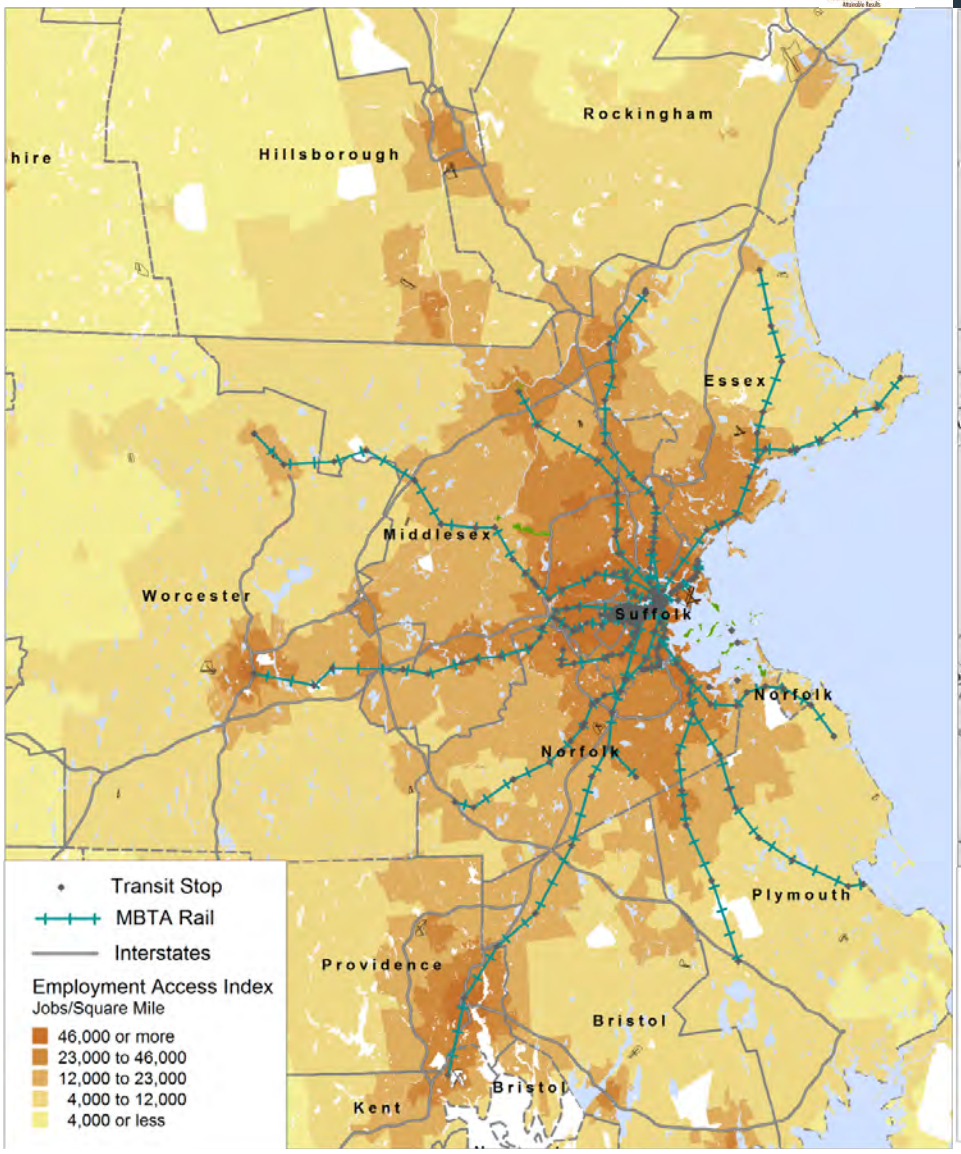


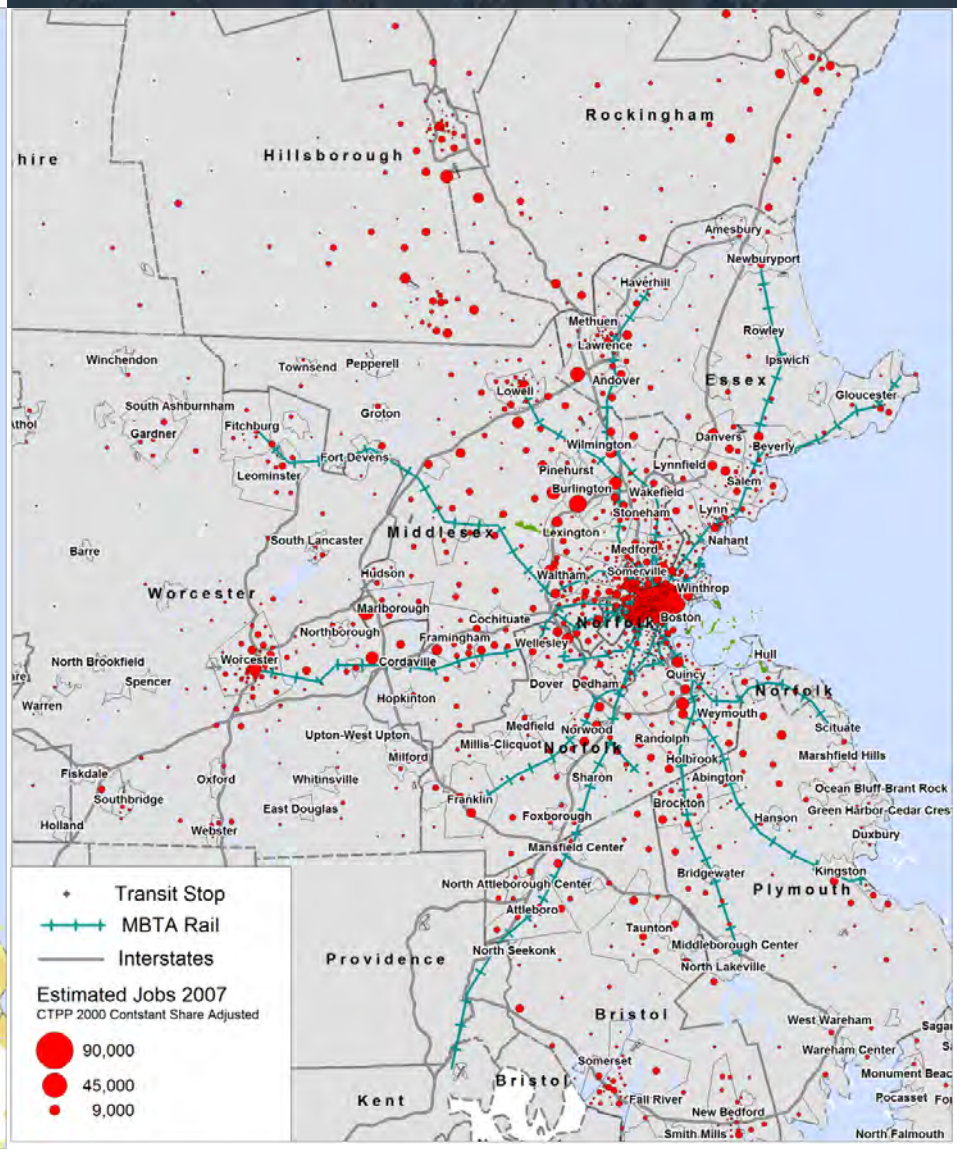


60% of Region's HHs On Network Have Very High EAI, 40% Do Not

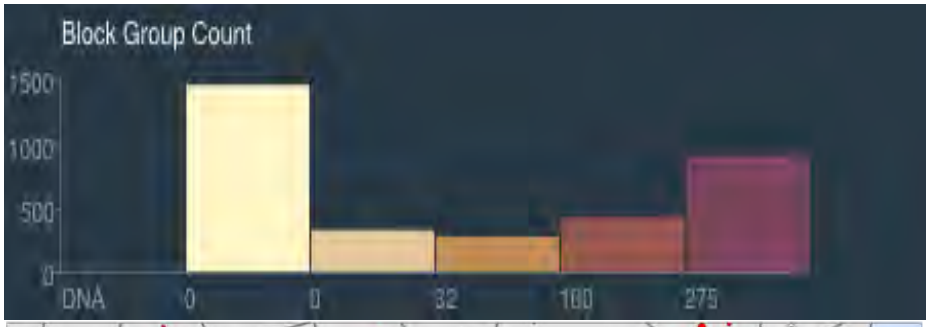


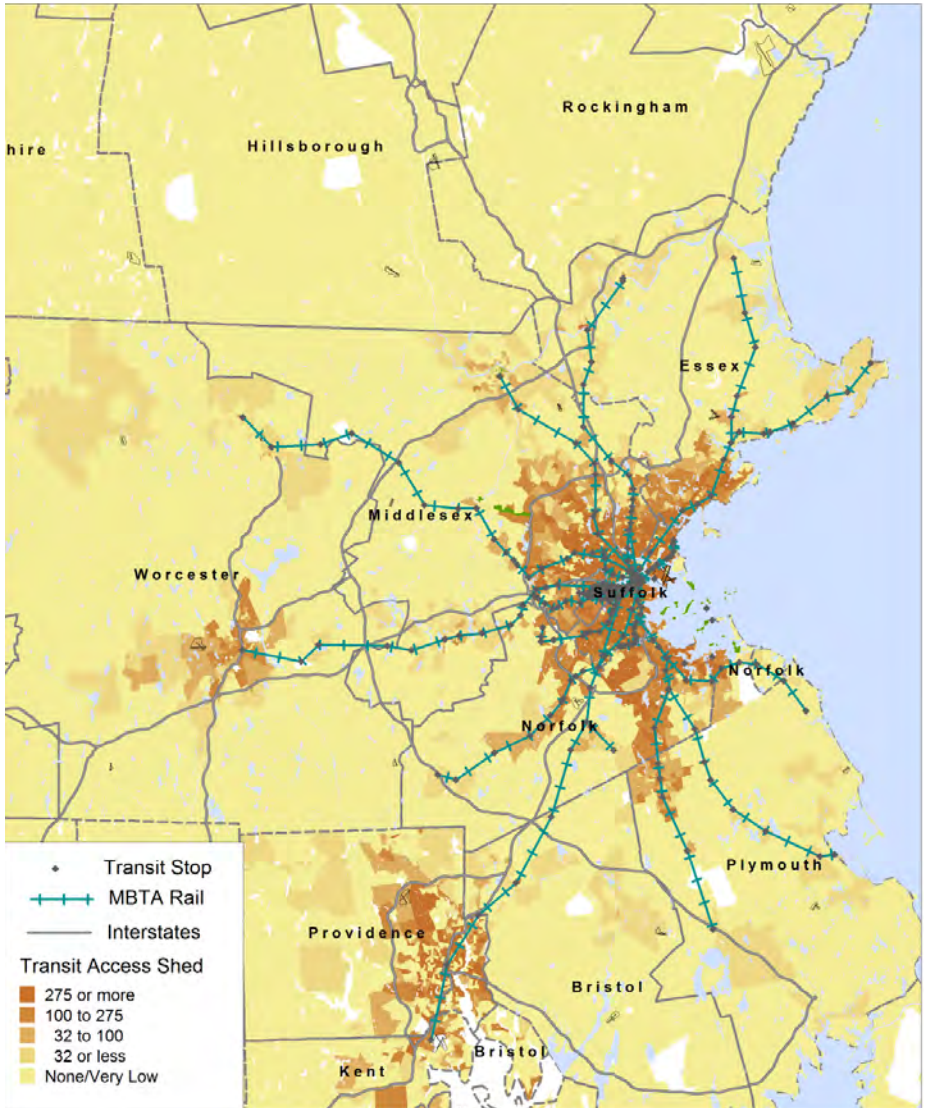
CNT

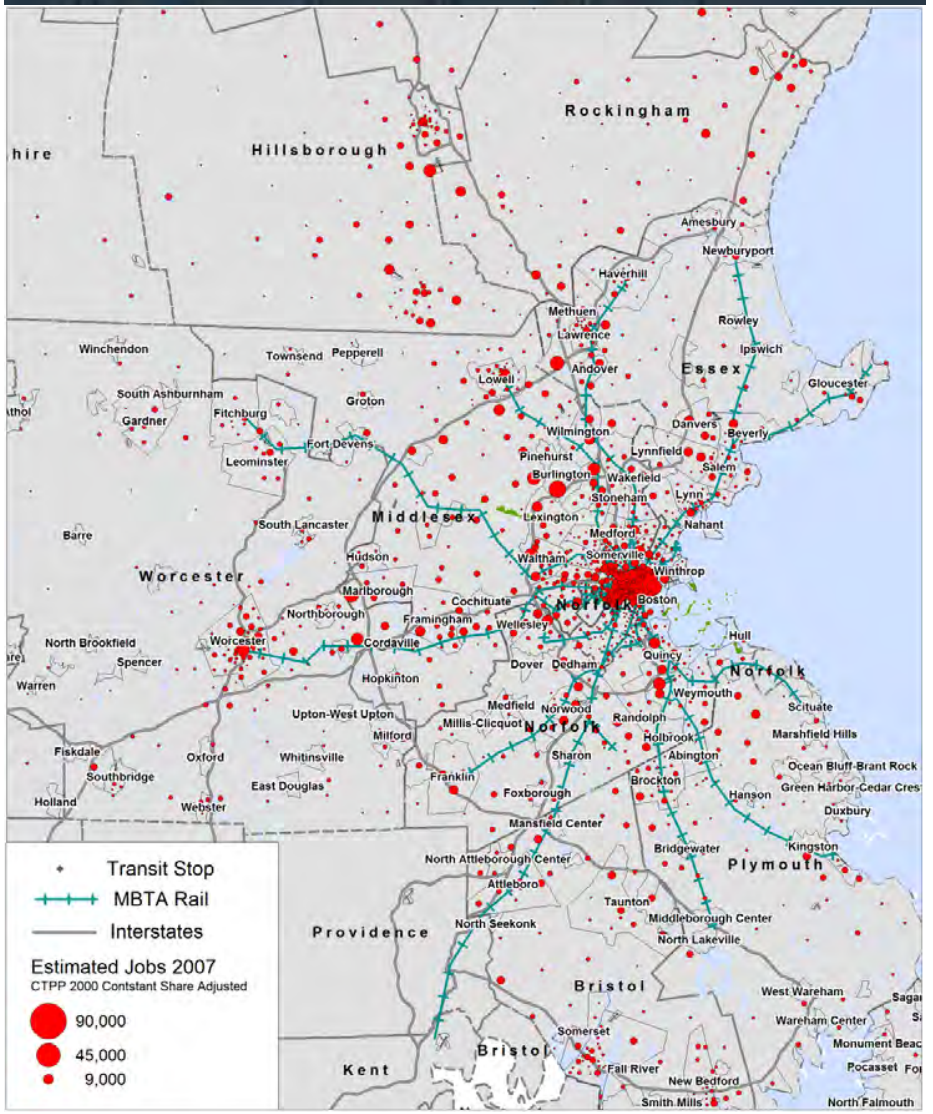




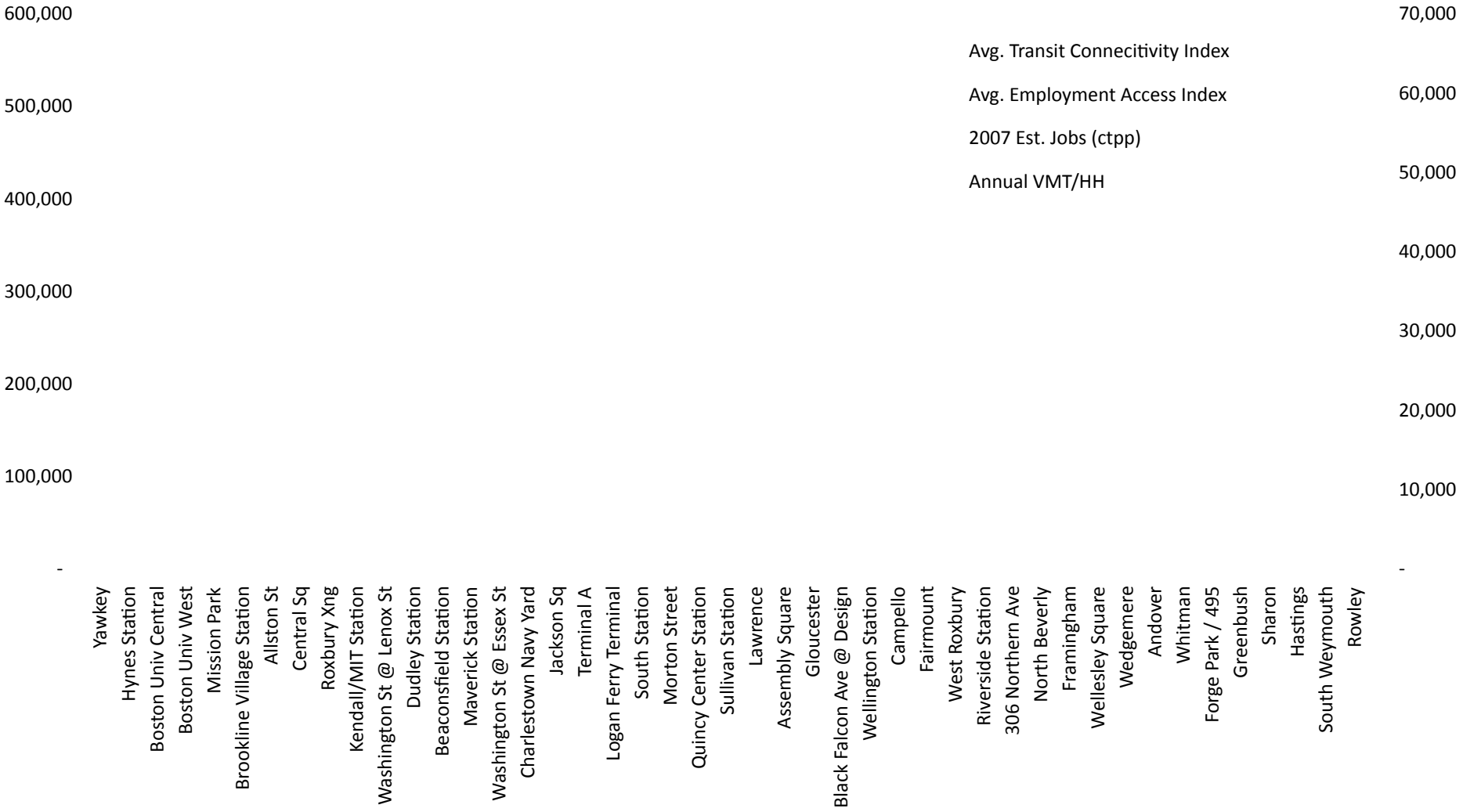
37% of region's HHs can access jobs within a 30 minute transit commute, 63% cannot



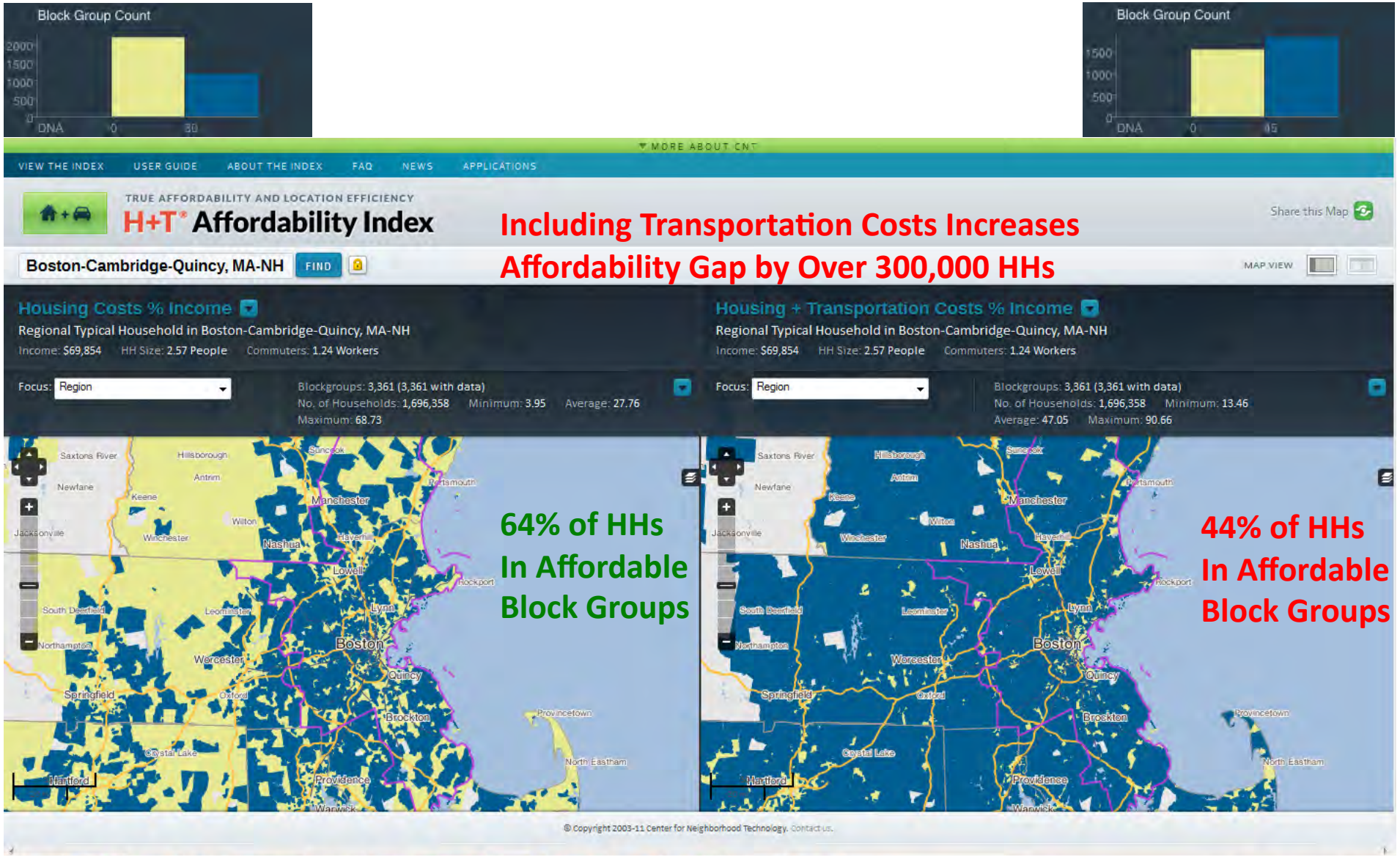




Place Really Matters—As Density & Connectivity Increase, Travel Demand and Cost Drops and Employment Access Soars



Putting It All Together—Left Map Shows Affordable Areas Using H-Costs, the Right Showing H+T Costs for HHs Earning Area Median Income



We Can Use This Knowledge To—

- Protect consumers against “hidden” costs by providing better information
- Analyze trends & compare across HH types
- Define housing needs for public policy purposes
- Encourage coordination of housing and transportation policies
- Inform State planning for housing, e.g. workforce
- Predict the ability of a household to pay rent or mortgage
- Improve financial / housing counseling
- Help make the case for and package alternative financing for accelerated transit system build-out

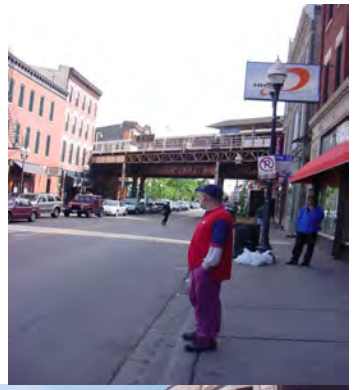
Index is Being Adopted At Several Levels

- HUD and DOT are using to screen sustainable communities and TIGER grant applications
- Metropolitan Planning Organizations in Bay Area, Chicago, DC and elsewhere using to re-screen, prioritize Long Range Transportation Plan investments
- Experimental counseling tools —Phoenix, East Bay, Chicago— link users with locally available resources—called Equity Express
- Metropolitan Transportation Commission in Bay Area used to justify helping capitalize Transit Oriented Development investment fund
- State of Illinois new act requires five agencies to screen investments
- City of El Paso Texas now uses to direct affordable housing to areas of low transportation costs
- Portland, others using to help create a typology of TODs that takes affordability and equity into account

TOD Is:

- ***Location efficiency*** —Dense, transit-accessible, & pedestrian-friendly
- ***Rich Mix of Choices*** —Wide range of mobility, housing and shopping options
- ***Value Capture*** —Good service & connections, local amenities support place-making, scorekeeping & attention to financial returns
- ***Place-Making*** —places for people, enriches existing qualities, provides new connections, works with landscape, builds reputation
- ***Resolution of Tension between TODs as "Nodes" and "Places***"– Works to support travel networks and communities

New Transit Town,
Island Press 2005



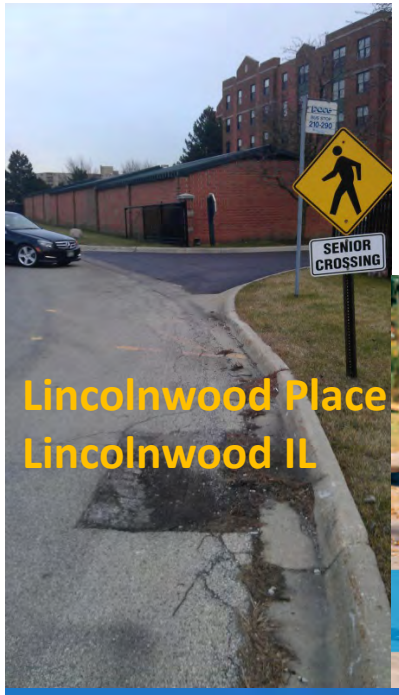
TOD is not

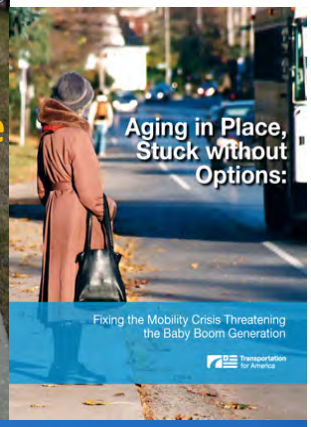
- ***Just for commuters*** —Work-related trips just 18 percent of total travel
- ***Auto-oriented transit*** —Way too much land in Chicago devoted to park-and-ride lots
- ***Just a place to sleep at night*** — People need to shop, eat, visit without getting in a car
- ***Only the transit property*** —All successful TODs are joint developments between cities, transit operators, private investor/ owners, and communities

CNT
Sustainable Communities Attainable Results

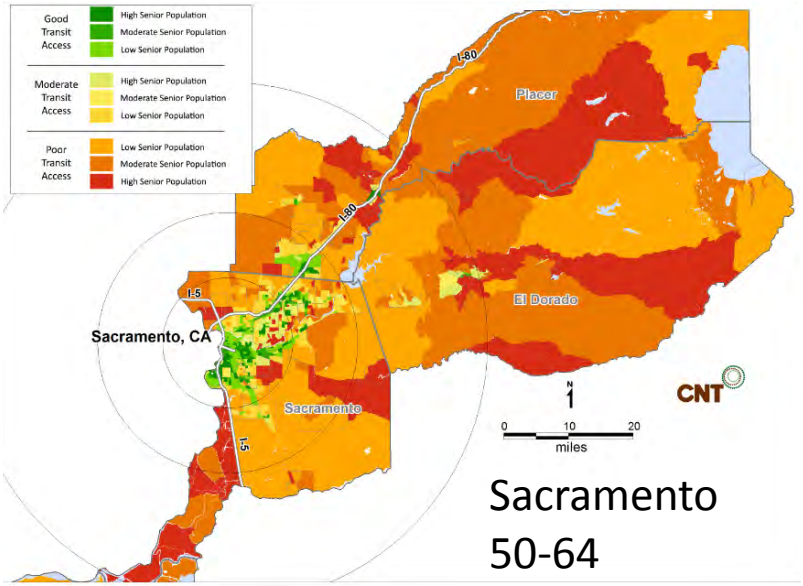
New Transit Town,
Island Press 2005

As Transit Connectivity Goes Down, Risk to Aging Boomers Increases

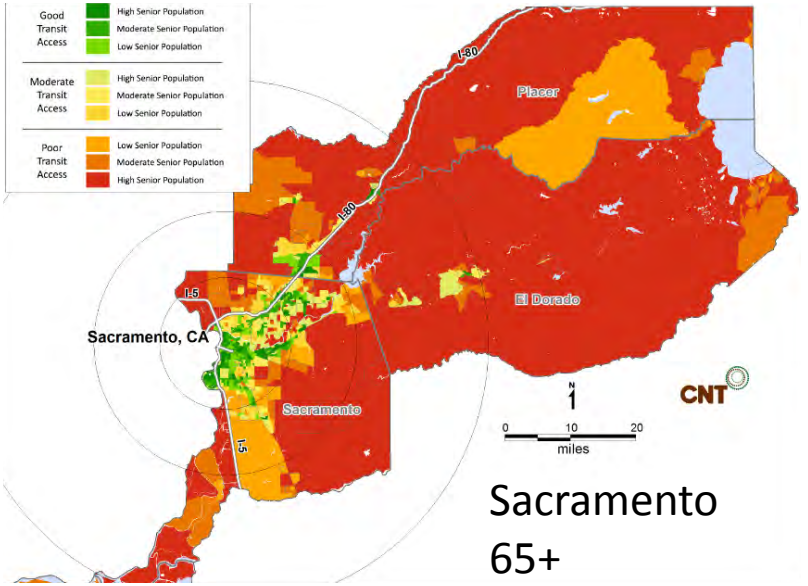




CNT for AARP

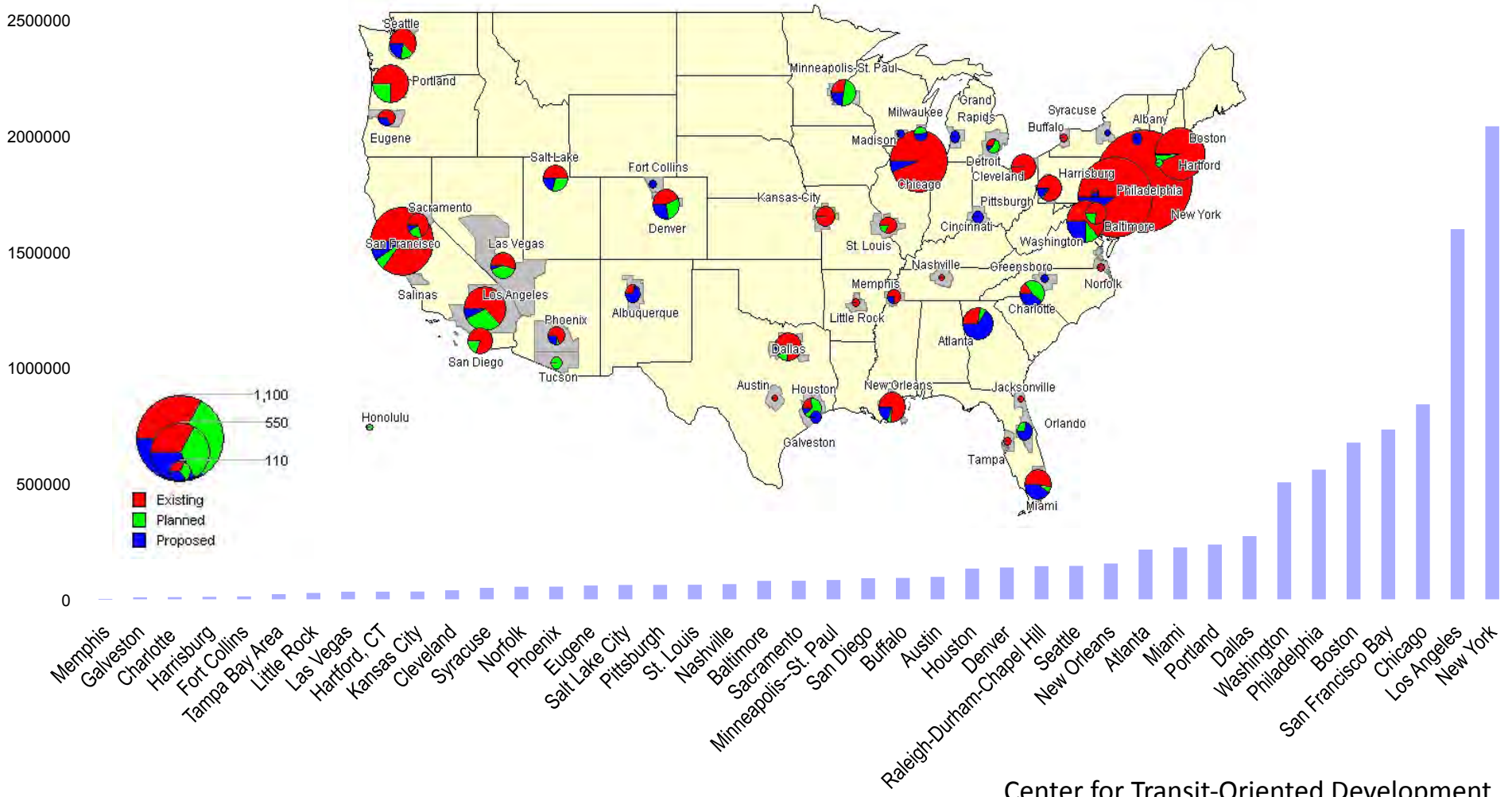


Sacramento 50-64



Sacramento 65+

25% of net new American HHs will "demand" housing near transit in 2030—



5-Year Growth Fixed Guideway Stations

	2012	2007	Growth
Existing	4416	3776	640
Proposed	1583	833	750
Total	5999	4609	1390

CTOD TOD Database
http://toddata.cnt.org

Center for Transit-Oriented Development
Hidden in Plain Sight—
The Coming Demand for Housing Near Transit
CTOD for FTA/HUD, 2005 and
Updated Demand Estimate Feb. 2007

Our Region Needs Investment—How Can Better Commitments Attract It? Chicago rated “fair” for investment and “poor” for development

2012 Emerging Trends in Real Estate report on top 51 US —Boston “generally good” for investment, development, “fair” for homebuilding

EXHIBIT 3-1
Investment Prospects for Commercial/Multifamily Properties by Market

generally good | fair | generally poor

1	Washington, D.C.	6.93
2	Austin	6.90
3	San Francisco	6.86
4	New York City	6.85
5	Boston	6.80
6	Seattle	6.60
7	San Jose	6.58
8	Houston	6.46
9	Los Angeles	6.30
10	San Diego	6.17
11	Denver	6.16
12	Dallas/Fort Worth	6.10
13	Northern New Jersey	6.10
14	Orange County, CA	6.01
15	Raleigh/Durham	5.96
16	San Antonio	5.83
17	Miami	5.81
18	Portland, OR	5.81
19	Westchester, NY/Fairfield, CT	5.74
20	Charlotte	5.59
21	Chicago	5.57
22	Honolulu/Hawaii	5.47
23	Phoenix	5.45
24	Philadelphia	5.44
25	Baltimore	5.44
26	Minneapolis/St. Paul	5.38
27	Nashville	5.32
28	Inland Empire, CA	5.30
29	Orlando	5.19
30	Salt Lake City	5.17
31	Pittsburgh	5.16
32	Virginia Beach/Norfolk	4.93
33	Tampa/St. Petersburg	4.79
34	Indianapolis	4.76
35	Kansas City	4.73
36	Atlanta	4.65
37	Oklahoma City	4.61
38	New Orleans	4.54
39	St. Louis	4.48
40	Jacksonville	4.46
41	Albuquerque	4.43
42	Milwaukee	4.33
43	Memphis	4.22
44	Tucson	4.21
45	Providence	4.20
46	Sacramento	4.01
47	Columbus	4.00
48	Cincinnati	3.97
49	Las Vegas	3.91
50	Cleveland	3.48
51	Detroit	2.88

Source: *Emerging Trends in Real Estate 2012* survey.

EXHIBIT 3-2
Development Prospects for Commercial/Multifamily Properties by Market

generally good | fair | generally poor

1	Washington, D.C.	6.41
2	New York City	6.16
3	San Francisco	6.16
4	Austin	6.04
5	San Jose	5.86
6	Houston	5.81
7	Seattle	5.81
8	Boston	5.66
9	Dallas/Fort Worth	5.42
10	Los Angeles	5.27
11	Denver	5.23
12	Westchester, NY/Fairfield, CT	5.19
13	San Diego	5.18
14	San Antonio	5.09
15	Raleigh/Durham	5.07
16	Northern New Jersey	5.01
17	Orange County, CA	4.92
18	Nashville	4.91
19	Portland, OR	4.87
20	Salt Lake City	4.71
21	Charlotte	4.66
22	Baltimore	4.54
23	Minneapolis/St. Paul	4.54
24	Honolulu/Hawaii	4.39
25	Chicago	4.31
26	Miami	4.22
27	Inland Empire, CA	4.22
28	Philadelphia	4.21
29	Pittsburgh	4.15
30	Orlando	4.00
31	Virginia Beach/Norfolk	4.04
32	Oklahoma City	3.92
33	Indianapolis	3.91
34	Albuquerque	3.90
35	Tampa/St. Petersburg	3.86
36	Kansas City	3.80
37	New Orleans	3.65
38	Milwaukee	3.62
39	Memphis	3.58
40	Providence	3.40
41	Jacksonville	3.40
42	Tucson	3.40
43	Phoenix	3.39
44	St. Louis	3.31
45	Atlanta	3.30
46	Columbus	3.26
47	Cincinnati	3.21
48	Sacramento	3.00
49	Cleveland	2.77
50	Las Vegas	2.48
51	Detroit	2.26

Source: *Emerging Trends in Real Estate 2012* survey.

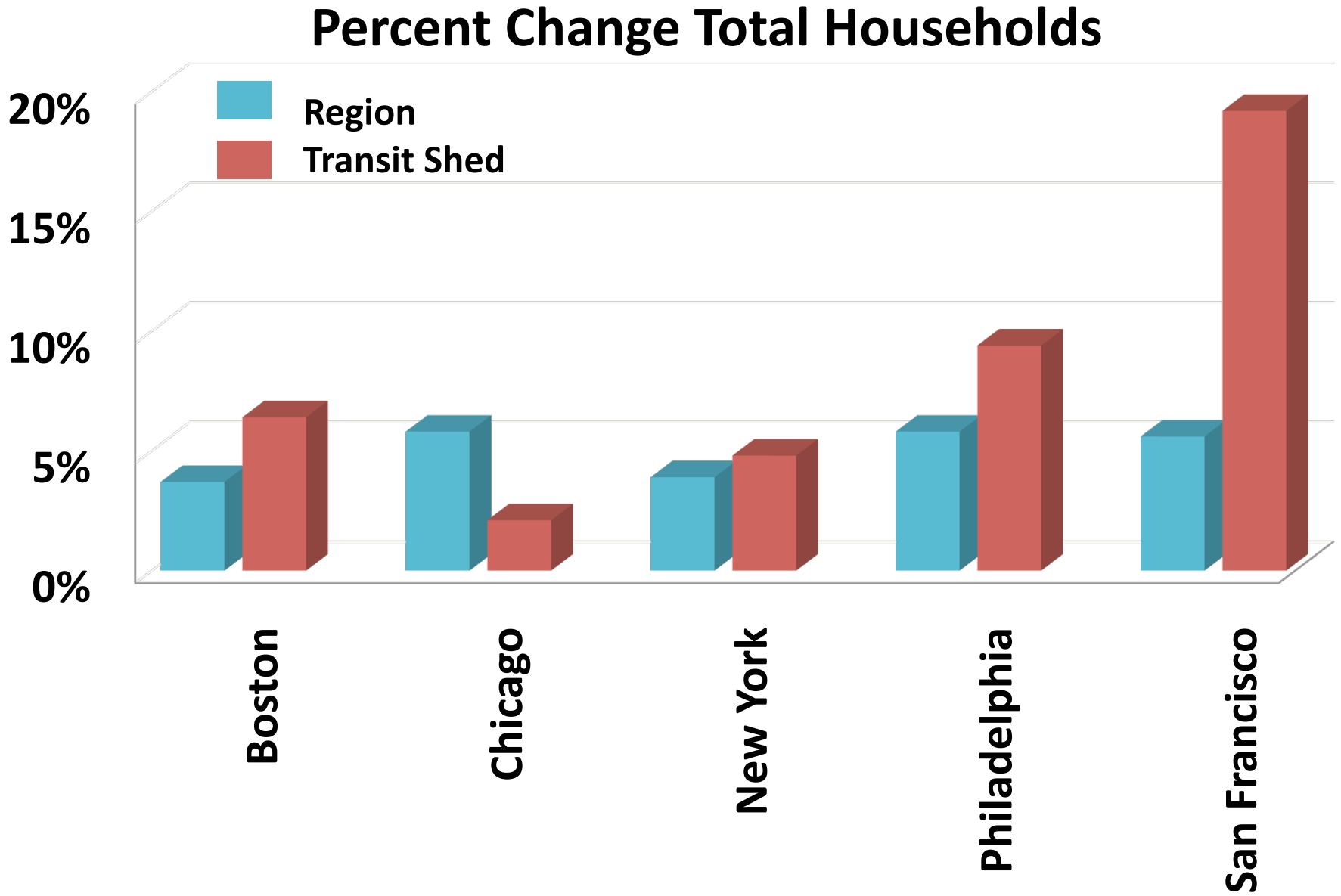
EXHIBIT 3-3
For-Sale Homebuilding Prospects

generally good | fair | generally poor

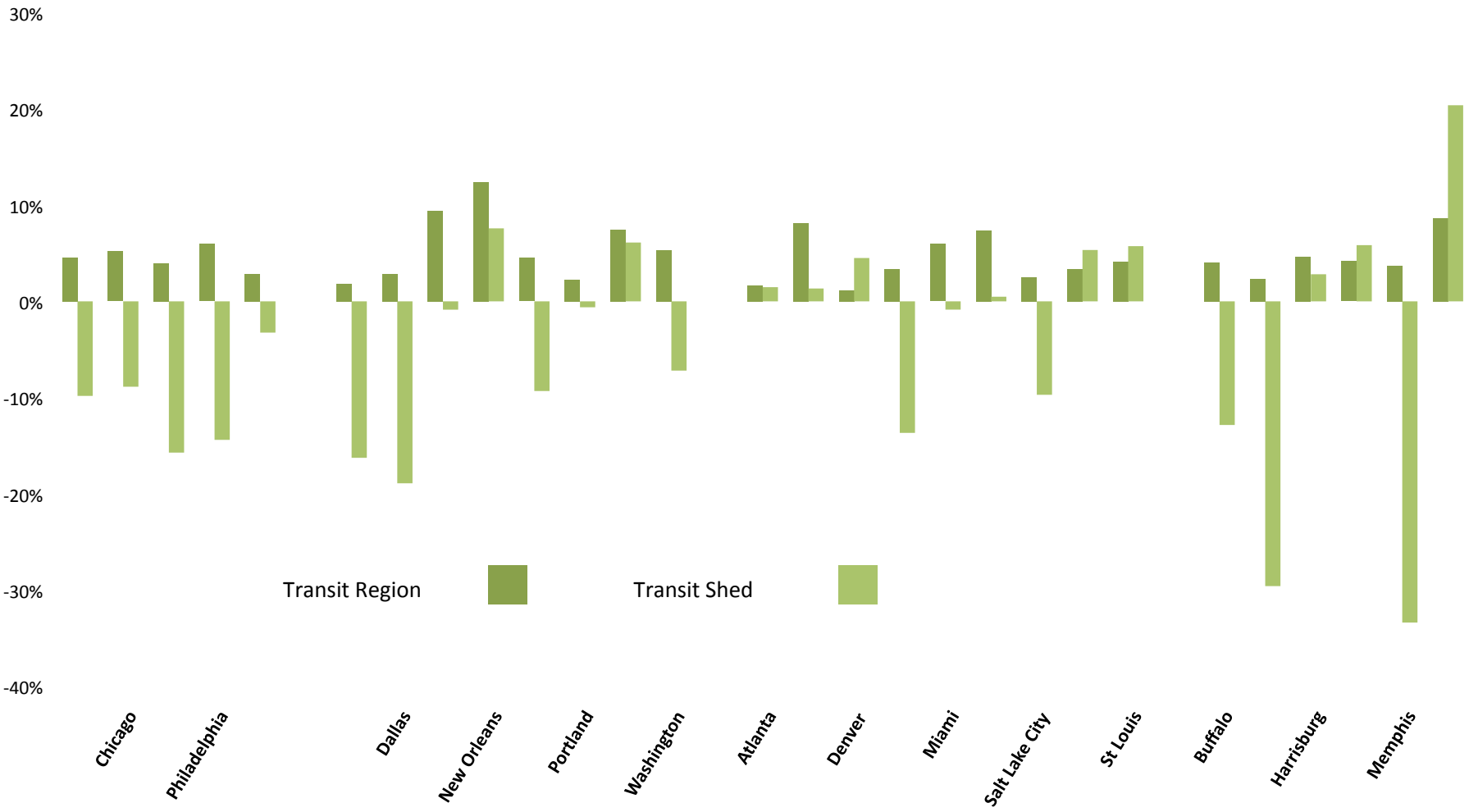
1	Washington, D.C.	5.99
2	Austin	5.76
3	New York City	5.51
4	San Francisco	5.40
5	Houston	5.31
6	San Jose	5.27
7	Seattle	5.21
8	Dallas/Fort Worth	5.19
9	San Antonio	5.14
10	Boston	5.05
11	Westchester, NY/Fairfield, CT	4.91
12	Northern New Jersey	4.68
13	San Diego	4.64
14	Orange County, CA	4.58
15	Raleigh/Durham	4.54
16	Denver	4.51
17	Los Angeles	4.50
18	Portland, OR	4.41
19	Salt Lake City	4.37
20	Nashville	4.23
21	Honolulu/Hawaii	4.23
22	Baltimore	3.99
23	Philadelphia	3.95
24	Charlotte	3.92
25	Orlando	3.87
26	Minneapolis/St. Paul	3.87
27	Oklahoma City	3.85
28	Chicago	3.75
29	Miami	3.75
30	Pittsburgh	3.73
31	Virginia Beach/Norfolk	3.61
32	Indianapolis	3.53
33	Kansas City	3.40
34	Providence	3.37
35	Milwaukee	3.35
36	Inland Empire, CA	3.35
37	Jacksonville	3.34
38	Memphis	3.32
39	St. Louis	3.27
40	Tampa/St. Petersburg	3.26
41	Albuquerque	3.24
42	Tucson	3.19
43	New Orleans	3.17
44	Phoenix	3.03
45	Cincinnati	3.00
46	Columbus	2.94
47	Atlanta	2.93
48	Sacramento	2.80
49	Cleveland	2.46
50	Las Vegas	2.37
51	Detroit	2.02

Source: *Emerging Trends in Real Estate 2012* survey.

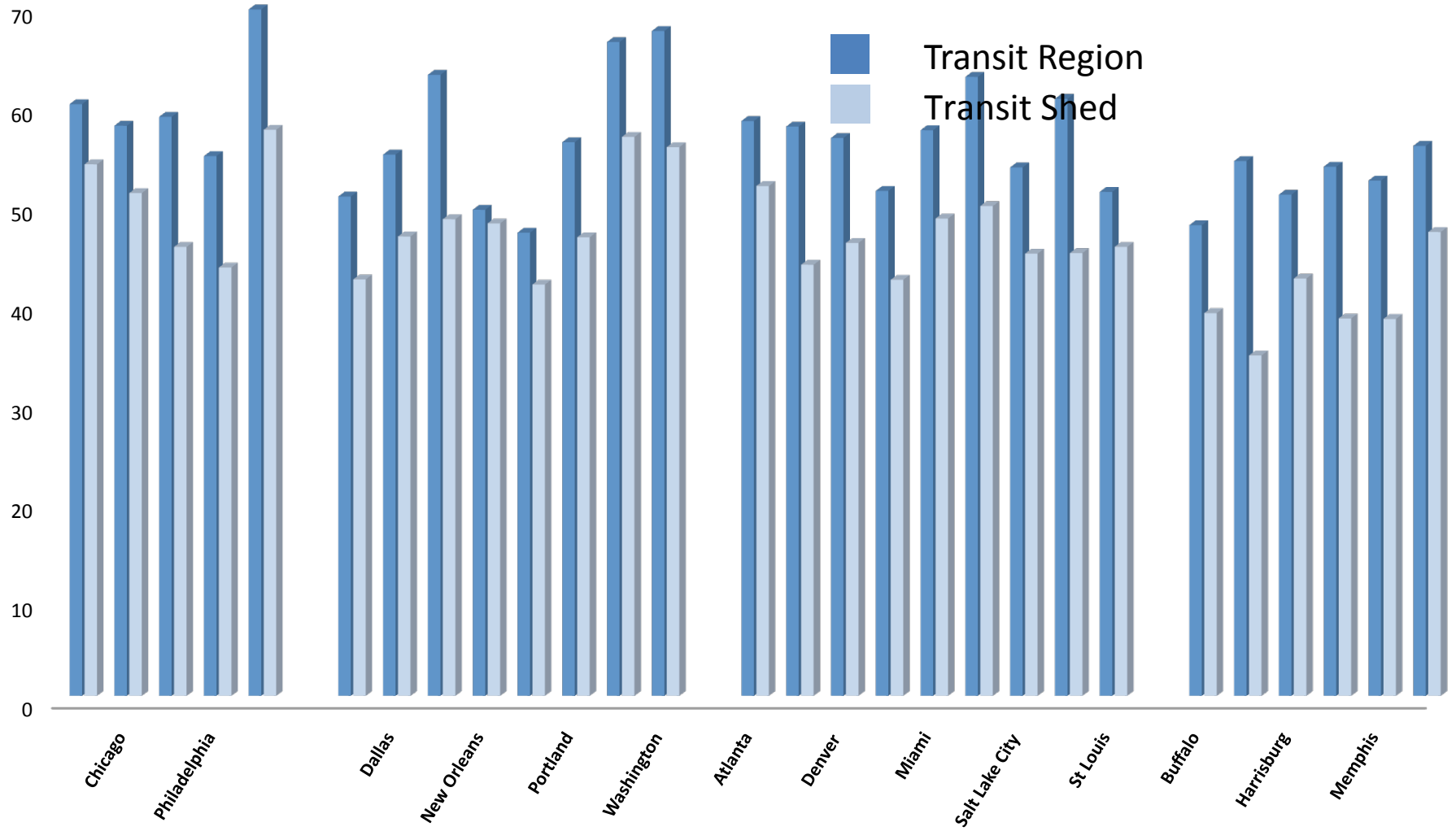
Chicago Underperforming Its Peers



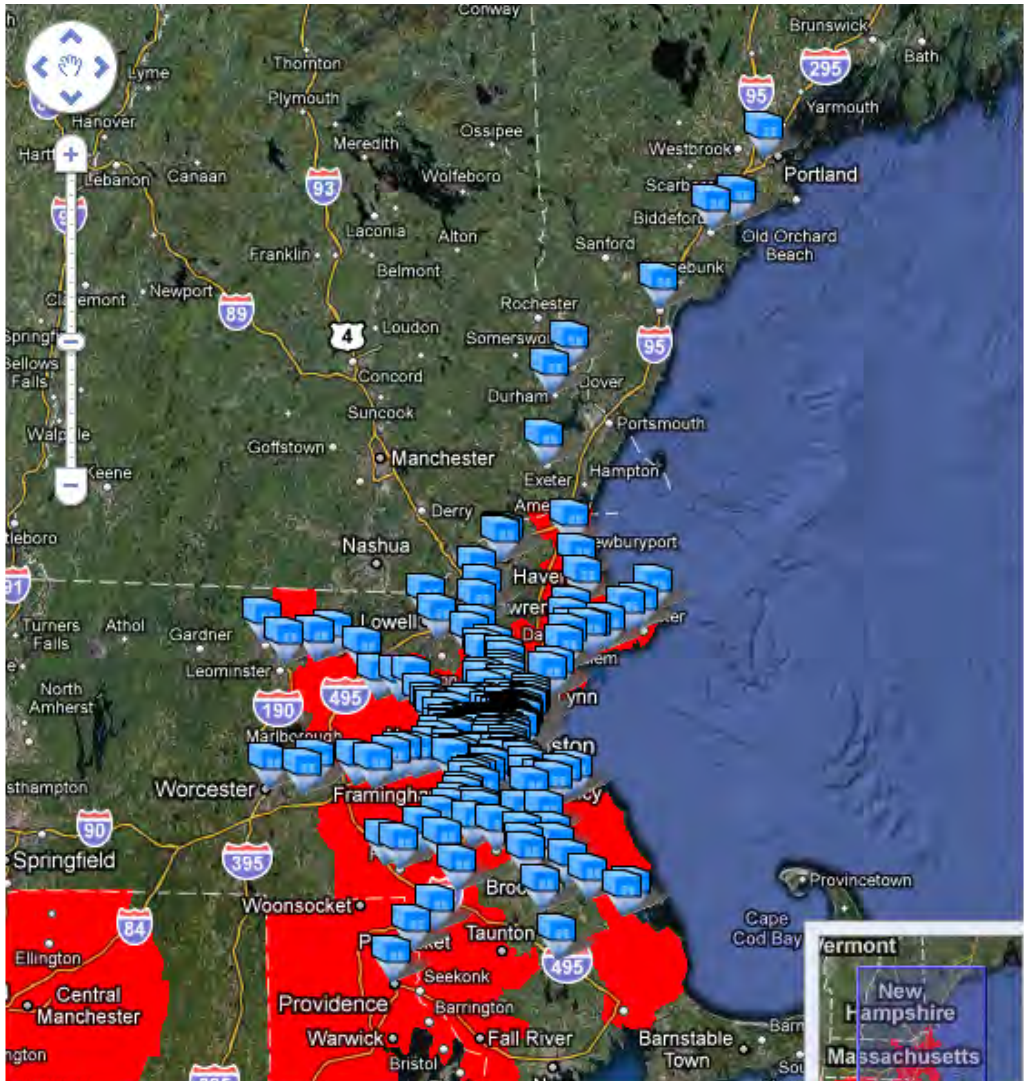
2000-2009, Avg. Autos/HH Increased 4% in Region But Dropped 10% in the Transit Shed

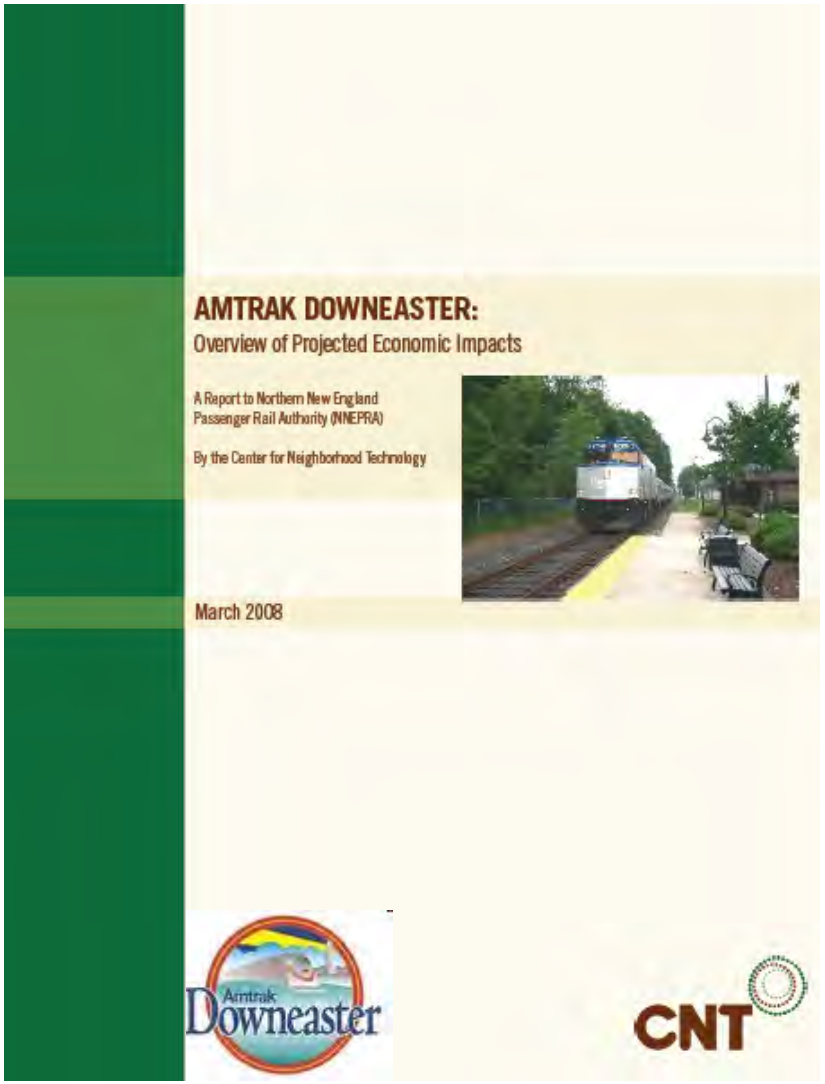


2009 Combined H+T Costs Higher in Region Than in the Transit Shed

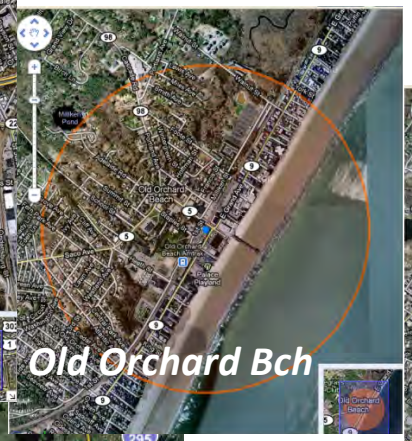


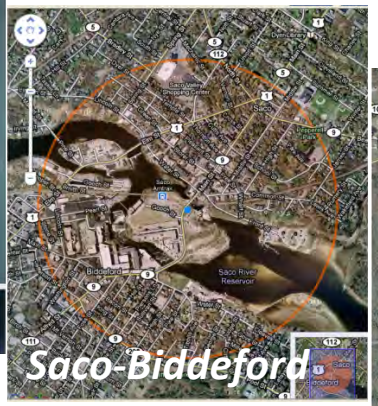
The Downeaster as a Model for Continued and Enhanced Regional Cooperation and Strategy





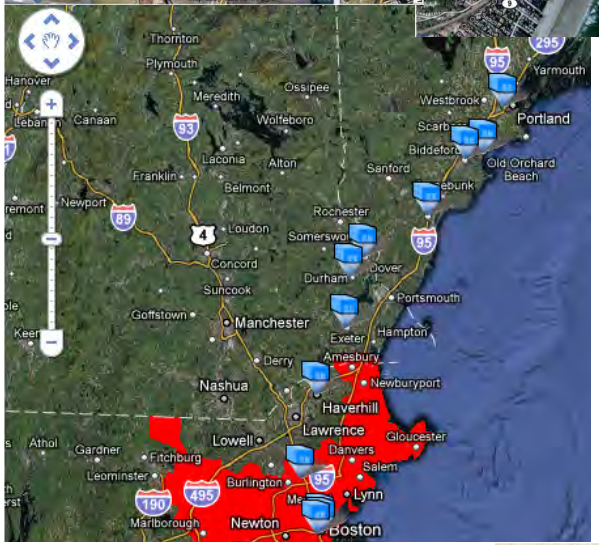

Portland

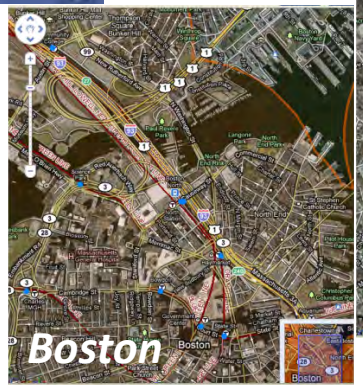

Old Orchard Bch


Saco-Biddeford

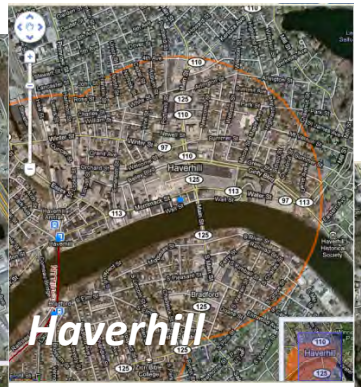

Wells


Dover


Thornton
Plymouth
Meredith
Ossipee
Wolfeboro
Laconia
Alton
Franklin
Belmont
Newport
Rochester
Loudon
Somersworth
Concord
Durham
Dover
Suncook
Portsmouth
Goffstown
Manchester
Exeter
Hampton
Amesbury
Derry
Nashua
Newburyport
Haverhill
Lowell
Lawrence
Gloucester
Danvers
Salem
Fitchburg
Leominster
Burlington
Lynn
Marlborough
Newton
Boston
Yarmouth
Westbrook
Portland
Scarb
Biddeford
Sanford
Old Orchard Beach
Ebunk


Boston


Woburn


Haverhill


Durham


Exeter

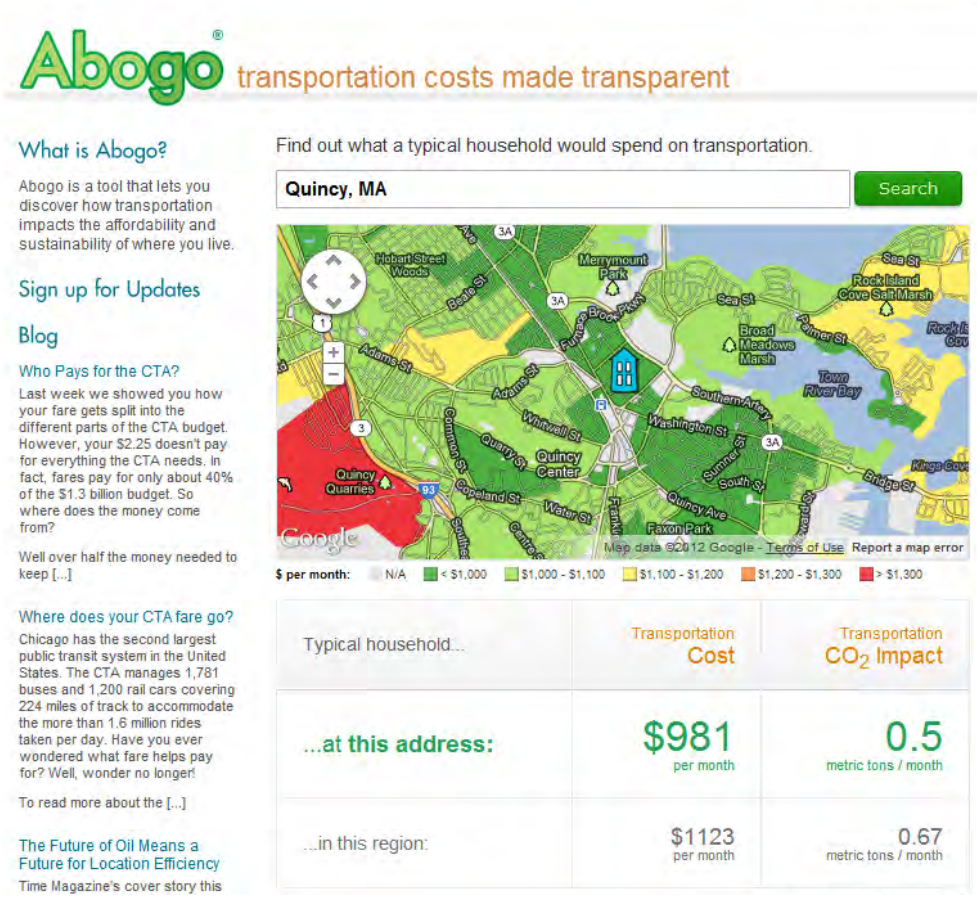
Downeaster Expansion Benefits Study in 2008 Projected by 2030-

- Cumulative construction of $7.2B
- Const/rehab of 42k hu + 6.8M sf commercial
- Over 17,000 jobs
- $244 million in annual transport cost savings
- $2.4 B in annual resident and visitor purchasing power
- $75 M in annual new state and local tax revenue

Study resulted in approval
Construction to be complete 2012

Ramp Up Use of New Kinds of Information Tools

- Equity Express counseling showing typical savings of $125/month for users with avg. $3,000/month income = 4% increased savings
- Model calculators for individuals in SF, Boston, DC and Twin Cities being expanded in work for HUD to be released by EOY
- Abogo provides quick access to affordability data that can be used in shopping for better locations



http://abogo.cnt.org

Location Efficient Mortgage Demo 2000-2005, Idea Was Well Received, No Foreclosures Seems to Have Outperformed Market

Chicago Tribune

18 Section 1 Sunday, June 4, 2000

Skip the car, buy a house

There's a lot of hand-wringing nowadays about suburban sprawl and the need for "smart growth."

But like the weather, nobody's doing much about it.

Much of the home-buying public still opts for wide-open spaces along the metropolitan fringe. And despite thoughtful warnings from civic and regional groups, political realities in Illinois militate against significant governmental action.

Now comes a modest but innovative pilot program that just might make a small difference. Maybe even a big difference—*if* it educates the public about the true cost of living "out there."

It's called the Location Efficient Mortgage, or LEM, and it has been developed by environmental groups such as Chicago's Center for Neighborhood Technology along with Fannie Mae, the government-chartered, stockholder-owned repurchaser of home mortgages.

It works like this: Participating lenders, in evaluating applicants, take into consideration how close the dwelling is located to public transportation. If it's so close the applicant can live without a car, or a working couple can get by with just one, the estimate of disposable income is increased, and with it, the size of the mortgage for which they qualify.

A couple jointly earning $60,000 and buying into Chicago's transit-rich Edgewater neighborhood, for instance, would qualify for a home selling for $212,218. Out in the boonies, under traditional guidelines, the limit would be $158,364.

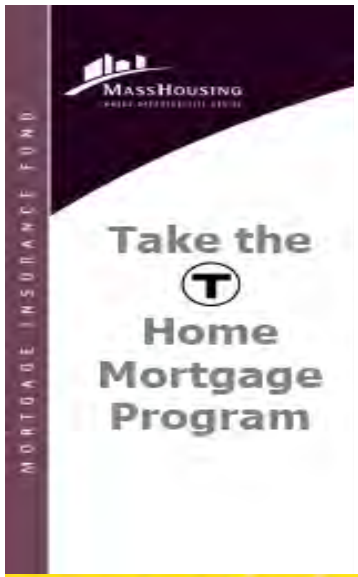
And there are sweeteners. LEMs are not subject to income limits and they offer more flexibility, including lower down payments, than conventional mortgages. The City of Chicago, moreover, is offering vouchers worth $900 toward the purchase of energy-efficient appliances to the first 100 LEM borrowers.

Downsides? There's mandatory counseling. And for now it's limited to Chicago and three West Coast cities.

The ultimate value of LEM, however, may be to show, in ways people readily understand, that sprawl does impose costs. Some of that cost is paid, knowingly and gladly, by those who choose to live "out there." Much of it, however, is hidden, and paid indirectly by those who live "back here."

For more information about LEMs call 1-800-732-6643.

Where Has it Been Tried



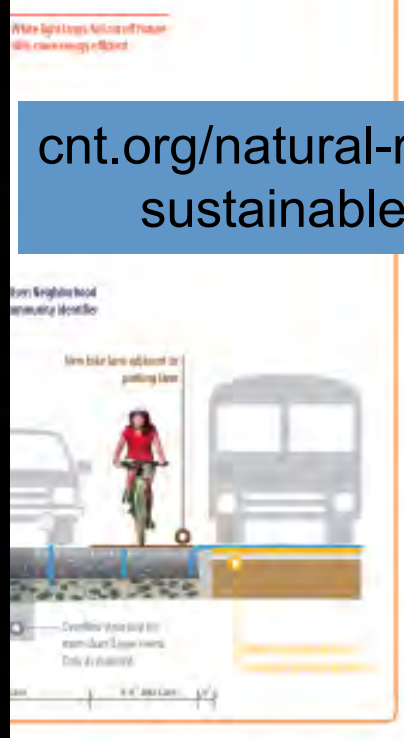
- LEM's in Seattle, Chicago, San Francisco, and Los Angeles (Fannie Mae and local lenders)
- Take the T Home Mortgage in Boston (Fannie Mae and state housing finance)
- Smart Commute Mortgages in several dozen cities (Fannie Mae plus local lenders)

Some Observations from Local Climate Protection

Chicago Policies: Accelerated Green Permitting

How Complete is your Street?

- Stormwater Management
- Energy Efficiency
- Water Efficiency
- Alternative Transportation
- Recycling
- Urban Heat Island
- Education
- Beauty and Community
- Site Selection
- Air Quality



cnt.org/natural-resources/sustainable-streets/

SUSTAINABLE STREETS *for* CHICAGOLAND

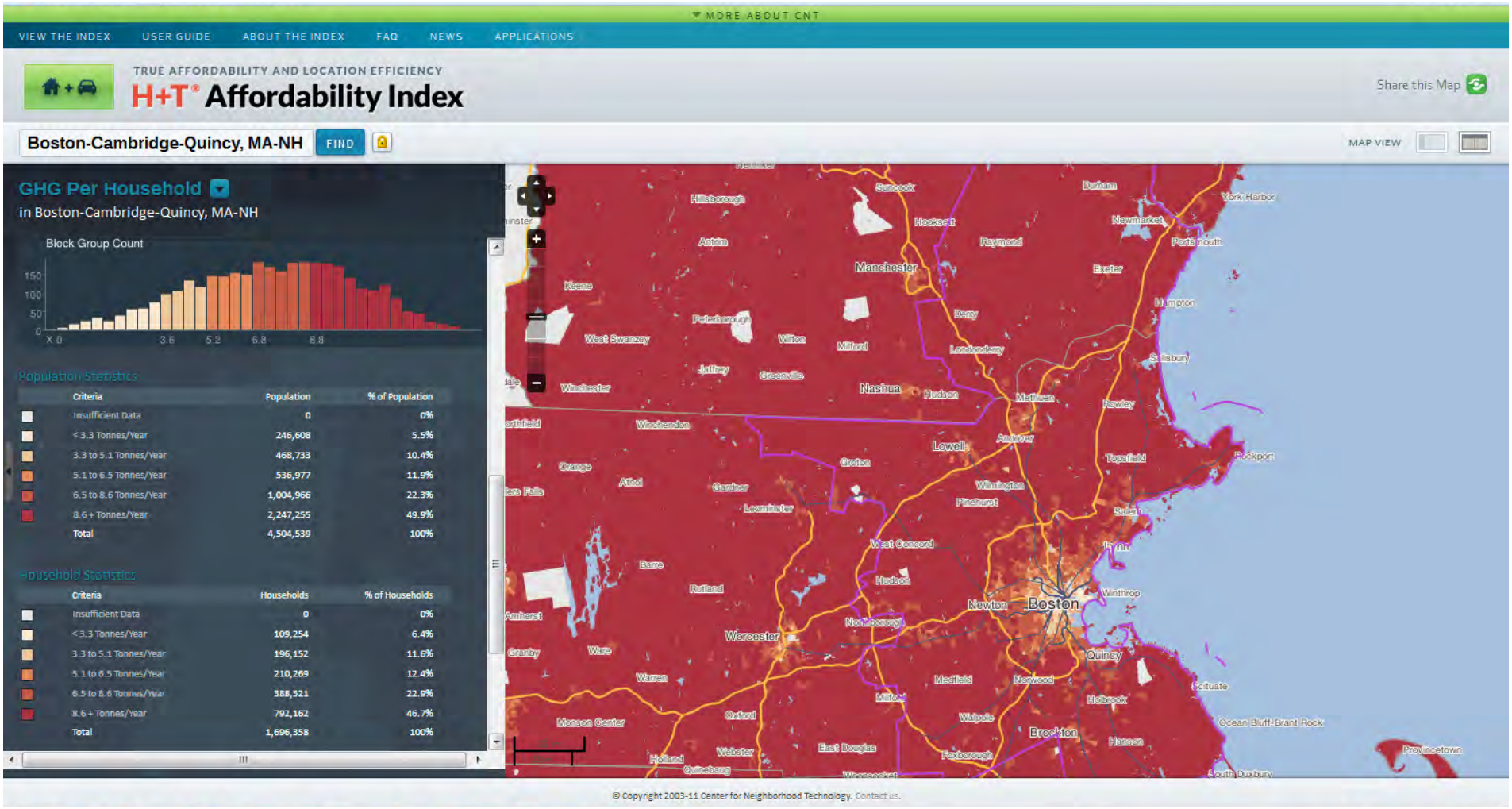
multi-modal, multi-functional and *totally fabulous*

The Chicago Department of Transportation and the Center for Neighborhood Technology invite you to learn about Chicago's innovative integrated design practices from Green Alleys to photocatalytic cements. Expert practitioners will explore how transportation projects can incorporate sustainable lighting, stormwater, and material development, with numerous opportunities for questions and discussions.

U.S. Department of Transportation
Federal Highway Administration

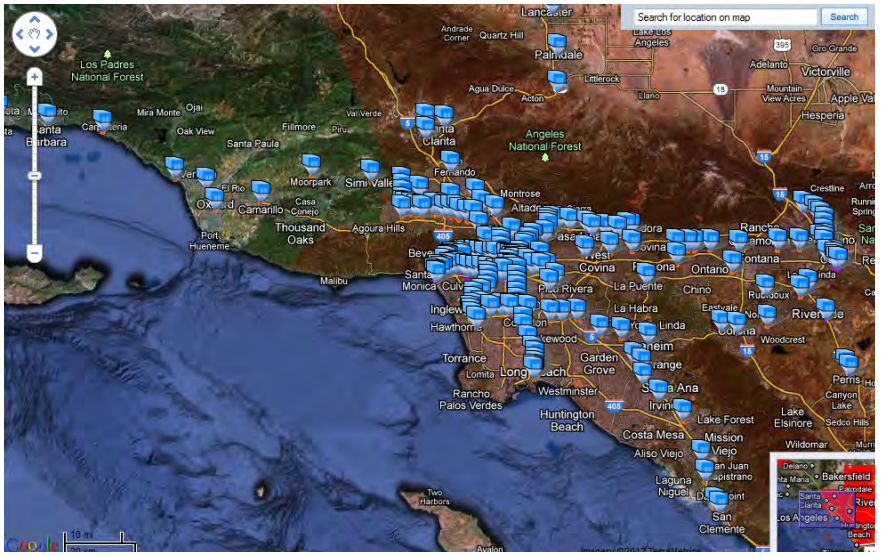
When: **Wednesday, June 17**

Leave No Ton Behind—GHG from Driving Ranges from 1- 14 Tons/HH/Year, Avg. = 8



Los Angeles—Moderate system, plan to create an extensive system, new local tax revenues in the bank AND create extensive community benefits

- Dedicated ½ cent tax passed during 2008 gas price shock
- Will generate $35-40 Billion over 30 years
- Original plan was to leverage with single loan guarantee and tax credit bonds and get the job done in 10 years
- Adaptive leadership—Move LA! & elected leaders now pushing for “”35-15”
- Will add 67 fixed-guideway stations to existing 174 and add more buses, BRT and increased frequency of service
- Significant GHG reduction, job creation & access & value creation



Denver—Provide Estimates of Tandem Community Economic & Environmental Benefits

Economic

- Fewer cars owned per household
- Fewer vehicle-miles traveled per HH per year
- 2/3 less exposure to gas price spikes and their effects
- Results in a 5-10% reduction in the cost of living at this income level, and higher amounts for lower income
- $2.5-$5 Billion annual regional savings, $75-$150 Billion by 2035
- Travel time savings due to less congestion

Environmental

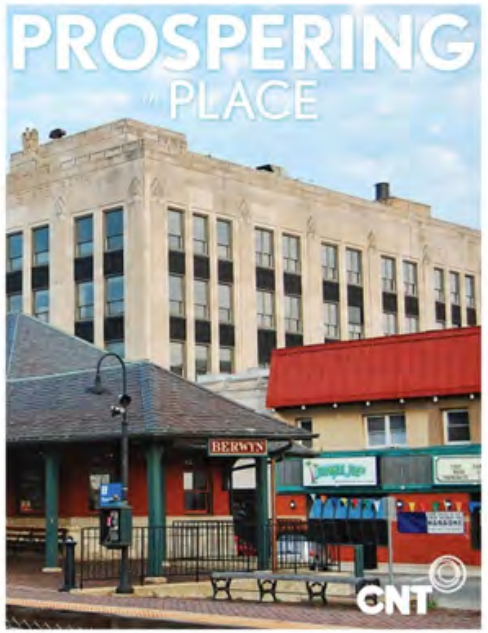
- Less automotive travel leads to less fuel consumption
- Less fuel consumption leads to lower emissions
- Less emissions accelerates Denver regional attainment with National Ambient Air Quality Standards and achieves transportation conformity goals
- For CO2, equates to 478-956 Metric Tons per Day, or a 1.75-3.5 % reduction in metropolitan GHG inventory, and a 4-8% contribution toward meeting Greenprint Denver goals
- Similar analyses can produce equivalent benefits for VOCs and Nox
- Supplemental water and energy conservation benefits from more compact construction

Recent Chicago Studies

Prospering in Place **highlights the communities where**

- **Transit-oriented development**
- **Cargo-oriented development**
- **Employment oriented transit**

will yield the greatest return to the region and guide 2040 plan's implementation.



5 Recommendations to Reinvigorate Chicago's Economy

- **Set Priority Development Areas (PDA)**
- **Create a Regional Sustainable Communities Initiative**
- **Align federal, state, regional & local resources in pursuit of PDAs**
- **Develop new resources for & accelerate transit & freight transportation improvements**
- **Fund predevelopment**

Observations for the Commonwealth

- MAP21 legislation made only modest changes, but "leave no ton behind"—sets the stage for new State-Regional-Local partnerships —new credit enhancement authority could boost new transit investments, e.g. South County
- State already has a good start on tools, e.g. 40R and 40B, but transportation priorities need to be reset to meet housing production at scale
- State's "Gateway Cities" are a big asset, planning can really pay here
- State needs to "signal" readiness to develop employment-oriented transit and TOD to market, "hang out a shingle" and show action in this term
- Take actions to make smarter infrastructure investments—savings of up to 80% per housing unit possible through higher densities and greener infrastructure

Thank you!

- scott@cnt.org
- www.cnt.org
- http://htaindex.org
- http://toddata.cnt.org
- http://abogo.cnt.org
- www.transact.org
- http://ctod.org